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Aconite as It Is Dispensed

A practical demonstration of tne extreme variability of tincture of aconite as shown by the results of a series of pharmacologic tests of samples of this remedy dispensed on prescription at different pharmacies

AT a recent meeting of the North Shore Branch of the Chicago Medical Society Dr. W. T. Thackeray pointed out some of the weaknesses of the galenical remedies as compared with the alkaloids and active principles in general. On the one hand (taking merely one illustration) he showed that while the various forms of aconitine, such as those known as the crystalline, Merck's amorphous and Japanese aconitine, pseudaconitine, etc., differ in strength, one from another, each taken by itself is a dependable preparation of practically invariable dosage. On the other hand, the physician who dispenses or prescribes tincture of aconite, U. S. P., has no assurance that his patient will get a potent remedy —or possibly one that might be too potent and therefore dangerous.

The accuracy of Dr. Thackeray's statement was verified in an exceedingly striking way. He procured, on the prescription of another physician, four samples of the official tincture of aconite from four different drugstores, all in the same neighborhood, the proprietors all being men of good professional reputation and character. These tinctures showed a most remarkable dissimilarity in physical characteristics. No two of them were of the same color, one being very dark, almost a blackish brown, another nearly colorless, and the other two of intermediate shades. There was also a decided difference in odor and taste.

The most striking difference, however, was revealed upon testing these specimens physiologically upon cavies, or guinea-pigs. Sample No. 1, given in one 1-2-minim dose, not repeated, in thirty-five minutes, produced symptoms of profound poisoning. The body-temperature dropped three degrees, and there was retching, muscular weakness, inability to walk or stand. The first evidences of poisoning appeared in ten minutes.

Sample No. 2 was given in divided doses over a period of an hour and three-quarters. The first dose of 1-2 minim produced no effect. The second dose of 1 minim produced the same toxic symptoms, as nearly as

practicable in the same degree, as those following the single dose in cavy No. 1. Total given, 1½ minims.

Sample No. 3 was given in divided doses during a period of one hour and forty minutes. A total of 3½ minims was required to provoke toxic symptoms similar to those noted in the other animals.

Of sample No. 4 it took 16 minims to produce a similar array of symptoms. Not until after 8 minims had been administered was any effect whatever determinable, the cavy playing about, nibbling at its food in the meantime, like any healthy animal.

The animals were all apparently in good health and of practically the same size, age and weight; all were males. The tests were made by an experienced scientific worker, a trained veterinarian, who has had large experience in biologic and test work of this kind. While chances for error are not excluded in this single experiment, nevertheless it seems impossible to "go behind the returns."

It is apparent that assuming, e. g., that sample No. 1 is of pharmacopeial strength, and we call this standard 100, then the others are approximately only 33 percent, 14 percent and 3 percent as strong. Or, if you prefer to consider only the last dose administered as the toxic one, they rate as 1-2, 1-4, and 1-16 the strength required by the Pharmacopeia.

Suppose we make the application to the human animal. Let us suppose that it required 5 to 10 minims of sample No. 1 (the average dose of a standardized tincture) to produce physiologic effect; it would then take at least 10 to 20 minims of tincture No. 2, 20 to 40 of tincture No. 3, and 80 to 160 minims of tincture No. 4. Nor does that fully state the truth, since there is to be taken into consideration the cumulative effect of the repeated doses of the poison, so that possibly double these quantities would be required as the equivalent.

Can you conceive any doctor giving even twenty minims of tincture of aconite at a single primary dose? Do you know of anyone who would dare to give *three drams?*

It is facts like these which make it possible to understand cases like one reported by a medical friend the other day. The doctor was called to see a patient who by mistake had taken a whole teaspoonful of the tincture of aconite in place of spirit of nitrous ether—and who astounded both doctor and friends by not even feeling sick as a result!

Moral? What's the use! But, really, is it any wonder that there are physicians who scoff at "aconite" and at those who use it?

Standardized tinctures—with both the national and state governments back of the Pharmacopeia to support them? They are an impossibility, from the very nature of the problem.

Blame the druggists? Not at all. They cannot assay every sample of crude drug, fluid extract or tincture that they purchase. They are not equipped to do this and would not have the time for this work if they were. The only safety for the druggist is to purchase of a reliable manufacturer, who in turn should assume the responsibility. But how are doctor and patient to be protected, even then, without specification?

It's the whole galenical system that is at fault. When we concentrate a little of our pharmaceutic knowledge upon a study of our plant-drugs and their principles, with the single purpose of getting to *the real bottom* of drug action, we shall at last be on the right track.

One of our friends writes: "A patient asked me how much aconite was a dose. I answered that I didn't know; that of some preparations it was a drop, of others a teaspoonful—that I used the active-principle and the dose was always the same." This, it seems to us, is the logical solution of the whole difficulty.

CLINICAL OBSERVATIONS

We have repeatedly urged upon our readers the importance of careful clinical observation, that a correct appreciation may be made of the exact pathologic derangement exhibited by the patient, and a correspond-

ingly exact application of therapeutics deduced therefrom.

We have received from Dr. Pedrick of Passaic, N. J., a study of cicuta virosa as compared with conium maculatum. This study is made from the homeopathic standpoint. What interests us especially is that it is a beautiful specimen of accurate observation. Every symptom is noted with scrupulous accuracy. We wish we had the space to print this study entire, but this unfortunately is an impossibility. But this study is a model of what can be revealed by close, trained observation.

Do we need to apologize for suggesting that every one of us could with advantage imitate our homeopathic brethren in this respect? Surely it is not possible for the physician to know too much about his patient, or to study the symptoms too closely, so as to analyze them down to the last possibility of refinement. Many times, as we look back over our professional life, we see where we made mistakes, by accepting hurriedly the surface indications and not really going to the bottom of the matter. We can not recall a single instance where we did harm by too close study of the case.

The secret of happiness is to have plenty of work—and to like it.

THE SOCALLED GASTRIC NEUROSES

Under the above head Tom A. Williams made some remarks in discussing Dr. Vanderhoof's paper on Indigestion, at the recent meeting of the Medical Society of Virginia, which we would like to reproduce entire had we the space. His opening paragraph however we simply have to give you:

"There is a wide gulf between the pragmatical anatomist who can conceive nothing but what is morphologically demonstrated and the narrow view-point of the self-styled mental healer whose ignorance of biology allows him to believe that psychotherapy can remove anything. Neither of these individuals is capable of a just appreciation of disordered functions. For this view we must have the outlook of the physiologist; but even many physiologists have not extended their studies of function to those complicated reactions of the nervous system termed psychic.

"Now, without a clear grasp of the import, potency and limitation of the influence of mental impressions over somatic processes, a clinician cannot comprehend the mechanism of certain defects in the functions of organs which are induced by disturbances in their neural mechanisms originating in the cortical associational processes termed psychic."

A TUBERCULOSIS NUMBER

Next month we shall devote a large amount of space to the discussion of the treatment of tuberculosis. We do not want to fill our journal with the "same old stuff"—the hackneyed material that is being worked over and over again. We want a flood of brief, thoroughly practical therapeutic suggestions, covering every phase of the treatment of tuberculosis and its complications. Leave out the pathology, the etiology, the symptomatology. If you have any boiled-down hints as to early diagnosis, send them in—but *treatment is what we want most.*

Write your little contribution today and mail it to us before you go to sleep.

ESPERANTO

As our readers have all seen—of course—for the last two or three months we have printed considerable reading matter about the new universal language, known as Esperanto. Last month we started a regular course of lessons in the instruction of the language itself. This course is being prepared by a distinguished American physician, who is one of the most enthusiastic adherents of Esperanto and sees in it a means of international communication of the utmost value to physicians.

Esperanto is easily learned. Its grammar is extremely simple. There are no exceptions to the rules and the rules are as few as possible. A few hours of close ap-

plication will give the student the essentials, and practically all of the structure of the language is given in the articles printed in CLINICAL MEDICINE of last month and in this issue. The vocabulary is made up of words that in their root-form are for the most part common to all the European tongues. Once an idea of the structure of the language is acquired the student can read or write almost anything, thus being enabled to communicate with educated people everywhere, with the aid of simple "keys."

Esperanto should appeal with especial force to physicians. Its inventor, Dr. Zamenhof, is a well-known oculist in Russian Poland. Physicians have been and are prominent in the Esperanto movement. It has been accepted as an official language at the International Medical Congress to be held at Buda Pest, in August. The medical departments of several armies have recognized it, including our own. There is already a medical journal published in Esperanto, in Hungary (*Voco de Kuracistoj*), and THE AMERICAN JOURNAL OF CLINICAL MEDICINE is providing lessons and will soon have an Esperanto department, in which medical articles of professional interest will be published! Of the seventy lay Esperanto journals, one, *The American Esperantist*, is published in Chicago.

Don't pass this over as "just a fad." Take the time to go through the elementary lessons carefully. Your interest will then be enlisted—and we'll "do the rest." Get out the last two back numbers—today.

Just a word more. Esperanto really means "the language of hope." As the Rev. Jenkin Lloyd Jones said recently in a sermon in Chicago, it is a prophesy of the growing hope for universal brotherhood, and this is glowingly stated in the Esperanto hymn, written by Dr. Zamenhof and presented at the Esperanto Congress in Cambridge last year. It has been literally translated as follows:

Into the world has come a new feeling,
Through the world goes a mighty call;
On light wind-wings
Now may it fly from place to place.
Not to the sword thirsting for blood
Does it draw the human family;
To the world eternally at war
It promises only harmony.
Beneath the holy banner of hope
Throng the soldiers of peace,
And swiftly spreads the cause
Through the labor of the hopeful.
Strong stand the walls of a thousand years
Between the sundered peoples;
But the stubborn bars shall leap apart,
Battered to pieces by holy love.
On the fair foundation of common speech,
Understanding one another,
The peoples in concord shall make up
One great family circle.
Our busy band of comrades
Shall never weary in the work of peace
Till humanity's grand dream
Shall become the truth of eternal blessing.

If you would not be forgotten as soon as you are dead either write things worth reading or do things worth writing. —Benjamin Franklin.

MOSQUITOES AND MALARIA

In *The Lancet* for April 3, 1909, appears a remarkable report dealing with the prevention of malaria by the destruction of mosquitoes in the island of Mauritius. The most rigid efforts were made and carried on for six years to exterminate this insect. Breeding places of the mosquito were effectually destroyed, all irrigation was stopped, and the gardens were sacrificed in consequence.

The effects of malaria were tested by examinations of the blood for the parasites and by the determination of the existence of enlarged spleen. After six years of the most thorough and effective work which could be put in operation, without regard to expense, the camp being reduced to a desert, the result is total and absolute failure. The percentage of cases in which parasites were found in the blood rose from 37.5 to 81 percent, while the percentage of enlarged spleen rose from 52 to 69 percent.

In commenting upon this the *Lancet* reporter says: "In view that the results of these operations may tend to arrest enthusiasm in the great cause of the prevention of malaria, it may be noted that antimalarial measures and mosquito-destruction measures are not and have never been synonymous terms, except to those who regard the latter

as the only method of value for reducing malaria; and that in Major James' opinion enthusiasm in the antimalarial cause is not arrested by the somewhat rare instances when the truth regarding failure in mosquito-destruction operations has been proclaimed, but by the more frequent ones when success in such operations has been reported on evidence that will not bear criticism and is often ridiculous.

Dr. James' article has been attacked by other writers, who combat his conclusions and question the accuracy of his statements. The report does not impress me as being deserving of credence. It looks like the *ex parte* statements, statements of partial facts, with suppression of material points, and other methods by which the wrong is made to appear the right which the anti-vaccinator and other more pretentious "authorities" have made us so familiar.

Depend upon this: you get what is coming to you, be it high honor or a swift swipe.—Elbert Hubbard.

THE TOXICITY OF CHROMIUM SULPHATE

A few months ago we published an editorial abstract of Dr. Kolipinski's article on chromium sulphate, which attracted a good deal of attention. This substance had been used by the doctor in the treatment of locomotor ataxia and with quite remarkable success. In looking up the literature on the chromium salts, we found various statements relative to its toxicity, which made it seem that in the doses suggested by Dr. Kolipinski there might be danger of poisonous action. To protect ourselves and our friends we made some experiments with guinea-pigs, which we report herewith.

Two healthy, full-grown animals were selected to which chromium sulphate was administered in tablet form. One animal was given 2 grains, the other 1 grain of the salt at 11 a. m. No result. The next morning at 9 a. m. animal No. 1 was given 8 grains, animal No. 2, 4 grains, then 4 grains more at 3 p. m. No apparent result in either animal. The morning of the third day at 9 a. m. No. 1 was given 12 grains and No. 2, 4 grains more. The first visible signs of illness appeared in both cavies at about 3 p. m. of this day. Temperature was reduced to 97 and 97.2 respectively; there was looseness of the bowels in both; difficult breathing, and in No. 1 (which received the larger dose) partial paralysis. The first cavy died at about 7 p. m., and the other, which was quite lively at 9 p. m., was found dead the next morning.

These experiments show that this salt of chromium is not nearly so toxic as it is sometimes thought, in spite of the statements of "authorities," and that in the doses suggested by Dr. Kolipinski (40 to 50 grains daily, as a maximum) it may be given, in all probability, with entire safety. Assuming the same degree of toxicity in a human being, from 900 to 1500 grains (2 to 3 ounces), would be required to produce death in a man of average weight. Some irritation of the digestive canal, though, would doubtless be produced by a much smaller dose.

We are now anxious for clinical reports, since we desire to learn the exact therapeutic field occupied by this interesting remedy.

CROTALIN

In *The Boston Medical & Surgical Journal* Dr. Thomas J. Mays gives a profoundly interesting study of the action of rattlesnake venom as a remedy. Crotalin is the dry residue of evaporated venom and is soluble in glycerin and water.

The first case cited was that of a colored man, with advanced syphilitic phthisis and persistent and rather profuse blood-spitting. He was given one-half a milligram of crotalin, injected into the arm. This caused pain and swelling around the puncture, extending to surrounding parts in a few hours. In two days all effects had disappeared. Meanwhile the blood-spitting ceased, the physical signs, cough, expectoration, greatly improved, and he gained in strength. In two months he was able to resume light work. The same dose was continued once or twice a week.

Another experience showed the most practical hypodermic dose to be from one two-hundredth to one one-hundredth of a grain once or twice a week. It was found preferable to begin with the smaller dose. In no instance did the local symptoms prove excessive or detrimental in the more than two hundred injections given. There is a great difference in the local reaction among the phthisical far-advanced cases, with lowered vitality; these patients are less susceptible and tolerate larger doses than those suffering from acute diseases. The hypodermic administration of the drug may be reinforced by giving it by the mouth, in doses of one-half to one milligram four times a day.

The second case was that of a colored woman, aged 32, with cough, expectoration, blood-spitting, as the usual symptoms, but few physical signs of phthisis. She gradually failed under the ordinary treatment and showed evidence of a small pulmonary cavity. Crotalin was then added to the previous treatment. In a few days cough, expectoration, appetite and strength began to improve, and she has since resumed her former work and is doing well. The cavity is dry and diminished in size.

This success is notable in view of the bad results usually following treatment of colored consumptives. Two similar cases in the first stages recovered under the same treatment.

A man, aged 40, in the second stage of phthisis, with much cough and expectoration, dyspnea, oppression and anorexia. He showed dulness in the upper half of the right lung, mucous and sibilant râles over the same area. Was ordered strychnine, quinine, hypophosphites, codliver oil, nutritious diet and rest. No improvement was perceptible until he received crotalin injections. He made a good recovery and has been able to follow his work of shoemaking for five months.

A male, 30 years of age, in the second stage of phthisis, had had persistent hacking cough and yellow, blood-streaked expectorations for two years. He showed dulness and some crepitation over the upper half of the left chest and anteriorly. Tonic treatment resulted in no apparent improvement, until crotalin injections were added; in a month he was much better and steady improvement continued.

A woman, aged 24, in the third stage of phthisis; history of much cough, with yellow expectoration, dating from pneumonia four years before, great hoarseness, fever, dyspnea, poor appetite, a small cavity in the right intraclavicular region, sibilant and moist râles over the remainder of the lungs, and impaired sonance in the left superclavicular region. Under codliver oil and nutritious diet, with crotalin, the cough and expectoration lessened, the latter changing to white in a few days. The hoarseness and fever were entirely relieved in a month, and during this time all the characteristic physical signs disappeared except the cavity in the lung.

Five other cases of phthisis in the third stage are described, with similar gratifying results. Two other cases were so far advanced that they were recognized as hopeless from the beginning, but even here temporary improvement was secured, although death finally resulted.

In all thirty-two cases are described and reference is made to three others, making thirty-five in all. Of these seventeen are classed as phthisis, three as bronchitis, two as pleurisy, three as pneumonia, seven as asthma, one as neuralgia of the fifth nerve, one as incontinence of urine, with multiple sclerosis of the cord, one as cervical-brachial neuralgia. These last were included to show that the remedy is not confined to tubercular or even pulmonary maladies, but that it extends to well-recognized disease of the nervous system.

In summing up the cases, Prof. Mays states that it is fairly clear that in pulmonary cases the improvement is mainly due to crotalin. "It is hardly too much to say that this agent belongs to a valuable group of medicinal substances, of which we know very little and the properties of which have scarcely begun to be investigated. It is earnestly hoped that further experimental and clinical studies of crotalin and its allies

will greatly enrich the art of scientific medication."

In 1887 Sewall showed that by the injection of small and increasing doses of serpent venom an artificial immunity could be produced toward that venom, so that animals treated in this way withstood, in spite of a high degree of sensitiveness, ten times the dose which would have been fatal without this preparation. One suggested explanation of this fact advanced by Sewall was that the total energy of the protoplasm was increased as the effect of the tendency of the living matter to adjust itself to its environment. Accepting this as a working hypothesis, the next question, one as yet unsolved, is what effect such artificial immunisation against serpent venom would have on the susceptibility of the animal thus immunized to the action of microorganisms and their toxic products?

The greatest men were sneered at, leered at, jeered at
Before their deeds were cheered at,
So why are you cast down?
Get up from where you're lying,
Don't waste your time with sighing,
Keep right on with your trying,
Forget about the past.
What if you've had a set-back;
Make up your mind to get back;
It isn't what you were at first, but what you are at last.

MEDICAL NOTES AND QUERIES

Any reader who is willing to risk ten cents on a recommendation made by us will do well to send that sum to The Medical Notes and Queries Company, 1543 South Twelfth St., Philadelphia, Pa., for a copy of *Medical Notes and Queries*. I have just finished the April number and found it good, yes, too good to lose a line from the first page to the last. The editor sees that the quality of the material is kept up to a high standard by writing most of it himself.

One item, on Inspired Editorials, is calculated to set anybody to thinking, and thinking mighty seriously. At least we hope it will do so. For there is room for some sober thinking over these truths. The editor says what he has to say without heat, in few words, well chosen, with straightforward directness and vigor. It is, moreover, a vigor which is devoid of personality and abuse. It brings to mind an old story about Webster, which is worth retelling.

A farmer had a case in court, and Webster was engaged upon the other side. The farmer was exceedingly anxious to hear the celebrated orator and took his place in court beside his counselor. After listening to Webster for a short time, the farmer leaned forward and asked his lawyer in a whisper if that was Webster.

"Yes," was the answer, "Daniel Webster."

"Is it Daniel Webster, the great orator?"

"Certainly. Why do you ask?"

"Well, I don't see much about what he is saying, it is just plain talk."

The counselor retorted in a whisper: "It's the d——dest talk for your case you ever heard!"

ABDOMINAL PAIN

A lady applied to the writer recently for relief from paroxysmal attacks of pain in the epigastrium. These were alleviated by large doses of soda, or by antiferments of any description, although the relief was somewhat slow. The pain was not very acute, but the paroxysms recurred more frequently. They were not attended or followed by jaundice, and no bile could be found in the urine.

Nevertheless, acting upon the principle that there are one hundred cases of gallstone for every one in which the symptoms of that malady present themselves, I prescribed for her sodium succinate, five grains before each meal and on going to bed. The result has far exceeded my anticipations. The lady is completely relieved, and so pleased with the improvement in her condition that she has been recommending the remedy to all her friends, and in consequence there is scarcely a family in her neighborhood which is not now taking this remedy. One man asserts that he had not known for years a night's sleep undisturbed by indigestion, but that since taking the succinate he is a new man. Every other case of indigestion among the neighbors has

been relieved by this remedy, with one exception, that of a man who keeps himself constantly pickled in whisky all day long and every day. With him the succinate causes such an unpleasant burning in the esophagus and stomach that he is unable to take the remedy.

This opens up a new line of experiment for this remedy. Since, as above stated, there are about one hundred cases of gallstone as shown by autopsy to every one in which the disease is recognized during life, we have the right to predicate the presence of gallstone in nearly every case of abdominal distress which occurs. If so, sodium succinate may prove to be a remedy much more extensively valuable in indigestion and other allied conditions than we have heretofore supposed. At any rate, we suggest that it be tried as a routine in this entire field of gastric and intestinal indigestion.

We should be glad to receive reports from those of our readers who accept the suggestion and make a trial. We are firmly convinced that the field of application of sodium succinate will be considerably enlarged by such experimentation. It is a harmless remedy, the writer having administered it in doses as stated, twenty grains a day, for a year, in a number of cases; and as yet no evidence of injurious action, immediate or remote, has been detected.

"Words", said a French Diplomat, are "non les signes mais les singes des idees."

NOT TEACHING THERAPEUTICS

In the Association *Journal* there has appeared a series of letters, sent out by the Council on Pharmacy and Chemistry, recommending a study of more perfect pharmacology and therapeutics. While advising conservatism the Council urges teachers to instruct students, not as to the qualities of drugs and their therapeutic action, but the study of alleged nostrums and proprietaries, urging that they shall by analysis learn whether or not these preparations conform to the standard established in the U. S. Pharmacopeia.

The suggestion does not impress us favorably. We fail to see what special benefit is to be secured from such teaching. It does not in any way promote a higher line of drugs, but simply drags through the mire the name and products of some manufacturer. Our conception of progress in pharmacology lies in the study of the drug itself, its active constituents and their effects, physiologic and therapeutic. These studies should be rounded out, confirmed, corrected and completed by the widest possible clinical application. Treated on this basis, the department of therapeutics should be the crowning glory of a medical college. Were drugs studied as they should be we would not be subjected to the mortification of having so commonplace an article as epsom salt, which for centuries has been as familiar as our daily bread, suddenly discovered to possess properties never dreamed of before, and properties of the utmost significance to the patient.

The examination of proprietaries may impress itself upon the pharmacist whose propensities lie along the course of a detective, as being of importance; and in a sense this *is* of importance; but it is nevertheless comparatively insignificant in its relation to the topic of therapeutics taken as a whole. We should be sorry indeed to think there was nothing more in therapeutics than what is indicated by the articles in question.

There is a further objection to the Council's program for teaching therapeutics, in that it is impossible to prevent the suspicion of interested motives and of a desire to strike certain individuals or advance certain interests instead of presenting an absolutely scientific and disinterested view of the question. Lawson Tait was once asked by a German visitor what he considered the most important element in securing success from his operations. Tait responded, "Cleanliness of the finger-nails." The German looked at his own, under which was a goodly layer of dirt, colored, and returned to his home where he soon after indited a venomous attack against Tait. Venomous attacks generally have some personal griev-

ance or interest back of them. True science never becomes personal or indulges in vituperation.

Go to your work and be strong,
Halting not in your ways,
Balking the end half won,
For an instant dole of praise.
Go to your work and be wise,
Certain of sword or pen,
Who are neither children nor gods,
But men in a world of men.

—Kipling.

FOOD PRESERVATIVES

There are two sides to the question of food preservatives, and it is a curious comment on the uncertainty of human reasoning that both sides in the sodium-benzoate matter are right, depending upon the point from which you look at the matter. We have already expressed our view on this point. We object to sodium benzoate, salicylic acid and boric acid as food preservatives, not so much or at all because the minute quantities employed are in any way injurious to the health of those who partake of them, but because their use enables the manufacturer or his careless employees to palm off upon the public foods in which decomposition had already commenced, which could be covered up but not neutralized by these preservatives.

An instance of this occurred a number of years ago, in which the employees in a clam factory requested permission to use salicylic acid. The proprietor fortunately discovered, before acceding to the proposition, that they had carelessly allowed a carload of clams to spoil, and desired in this way to cover up their own neglect at the expense of the factory's reputation, and possibly the loss of human lives.

But if we look upon the matter simply from the standpoint of the possible injury done to the person who consumes a little salicylic acid or sodium benzoate with his food, that is another matter. In *Medical Notes and Queries*, Watson says: "Salicylic acid and salicylate of sodium can be taken generally for long periods in far greater doses than food preservation requires, without harm and often with positive benefit. One case under personal observation took over fifteen thousand grains of sodium salicylate in five-grain doses, taken dry before meals, for three years, with notable gain in health, weight and digestive power; making the cure, lasting up to the present time of ten years, of a lifelong indigestion. We have never believed that benzoate of soda in small quantities is injurious; and even it if were, we thought it far less hurtful than the subtle poisons generated by the decomposition of food in the preservation of which no benzoate had been employed."

This is our own view in general, nevertheless salicylic acid and the salicylates interfere to a certain degree with the development and the action of the digestive enzymes; hence we do not give them in doses such as Watson mentions. Some years ago we called attention to a fact noted in our personal clinical experience, that salicylic acid given in doses of a centigram, repeated in acute rheumatism every ten, fifteen to twenty minutes, and in cases of indigestion, gastric fermentation, etc., repeated every half hour, gives us results very far in advance of those secured by administering bulky doses of salicylate every two or four hours. As yet we have had no reason to modify the recommendation then given. We are satisfied that the principle is a correct one: that a little of this acid constantly present in the stomach and duodenum prevents the beginning of fermentation; whereas a bulky dose, given at infrequent intervals, simply checks it for a time. In this way we obtain a greater advantage from the use of very much smaller doses of medicine, and this is a desideratum greatly to be desired.

We have carried this principle still farther by advising the intestinal antiseptics in all cases of rheumatism, believing that the absorption of the by-products of intestinal putrefaction is an important, perhaps *the* most important factor, in the etiology of this disease. The use of laxatives or cathartics, also diuretics, to clean out the intestinal canal and other emunctories, of intestinal antiseptics (especially the sulphocarbolates) to check putrefaction and of antacids to

neutralize the acidemic state which is usually present, is the *rational* routine of treatment.

The salicylates do good in these cases—but why not try to learn the reason why?

Wouldst shape a noble life? Then cast
No backward glances toward the past.
And though somewhat be lost and gone,
Yet do thou act as one new-born;
What each day needs, that shalt thou ask,
Each day will set its proper task.

—Goetne.

BUY LAND

During the past eleven years the writer has visited nearly every state and territory in the Union, and in every one he has seen business opportunities awaiting the man who comes there with an average amount of brains and a little money. In every one he has found opportunities for the unwary to get rid of their money with ease and celerity.

Everywhere land is for sale. It is easy to buy and hard to sell. Nevertheless I am convinced that the best outlook for the future lies in the development of the natural resources of this country. So strongly am I convinced of this that I have taken my son from the New York Military Academy and placed him in the Agricultural College of Utah. The graduates of such institutions do not need to "hunt for a job;" the job awaits them. Whether it be in agriculture, fruit, ordinary or dry farming, forestry, agricultural engineering or the care of stock, every graduate who shows himself possessed of average ability finds his work ready and waiting for him.

Many a man in our profession, weary of the struggle, looks with longing eyes at the alluring prospectuses which come by nearly every mail from companies who have irrigation land or other agricultural propositions to place before them. To all of these one rule is to be applied—do not advance one dollar until you have thoroughly and personally investigated it on the spot. When you go to investigate, don't yield to the natural but most unwise impulse to pose as a "capitalist." Don't let a living soul even suspect that you have a dollar in your jeans.

Make up your mind, in the first place, where you want to make your home, for summer and for winter, for the remainder of your days. Next, carefully consider what you want to do, whether it shall be ordinary, dry or irrigation farming, or the raising of fruit, wheat, onions, beans, chickens, black cats, squabs, skunks, coons, Belgian hares, ducks, game birds, bulbs, drug-plants, nuts, or what. Just now the opulent possessor of a possum farm might be looking into the wholesale prices of diamonds. The decision might be simplified if one stops to calculate whether he would rather oversee a quarter-section—one hundred and sixty acres—devoted to ordinary farming, or a five-acre lot planted to fruit-trees, provided he can obtain as large a net income from the latter as from the former.

When these two points have been determined, put on a suit of old clothes and get a homeseeker's ticket to the locality on which you have decided. You cannot go wrong. There is not a quarter in the United States where you cannot find opportunities. Go there. Don't say a word about your having money to invest. On the contrary, you might intimate that you are "looking for a job." Sit around. Don't talk. Keep your mouth shut, but keep your ears and eyes open extra wide. Investigate. Listen to the gossip of the loafers in the country store. Consider well, and then don't invest a penny until next year. As the natives' hope of finding you a "sucker" die out, the prices will come down. You need not worry about losing your "opportunity." There are plenty more. They are like the bargain sales in the great department stores in a large city; there is not a day in the year, from January 1 to December 31, on which bargains are not offered.

So it is with land. You can always buy land. Get all the information you can about the climate, the crops, the markets, the supply of laborers and their requirements, the heat of summer and the cold of winter, the cost of transportation and your defense against freight extortion.

There are several beautiful irrigation-land propositions before me, but I hesitate over a summer temperature of 112 to 114 degrees. Fruit raising with a yield of from one thousand to five thousand dollars per acre for your crop sounds pretty good. But how about spraying your trees every few weeks, at a cost of fifty dollars an acre, and paying four-fifths to nine-tenths of your receipts to have the crop transported to a market?

Land titles are to be looked into also. If you settle near a levee or turpentine camp get a pack of dogs that don't like negroes.

The suiting of crops to the soil and season means a good deal to the inexperienced. One man went to the Gulf Coast and planted the crops he would have raised in Pennsylvania. The hot summer sun didn't do a thing to his potatoes! Oh no! He never realized one penny from what he planted.

Some parties got a tract of worthless Alabama sand, fertilized it at an expense of about fifty dollars an acre, and developed on it a "model farm," which certainly looked good on paper. Land that cost them a shilling an acre was sold at the very moderate price of thirty dollars per acre. But its capacity was exhausted within a few years, burnt out by fertilizers, and the purchasers deserted it, allowing the place to revert to its natural desolation. And, yet, any quantity of really good land could have been purchased in the same state, at from five to fifteen dollars an acre, well worth thirty to the purchaser. But that was not profit enough for the promoter.

One doctor who purchased a well-advertised irrigated-land section one year ago, and wrote me enthusiastically about it, now urges me to find a purchaser for him, because his daughters can not stand the loneliness.

No location is so favored by nature that it is preferable over all others for both hot and cold seasons. Making my own selections from my own observations, I should go to Florida for the winter and to Halifax or some location in the Rocky Mountains for the summer. As to occupation, that would vary between duck, pigeon or quail farming, and the raising of drug-plants; choosing these, because neither of them is at present overdone or liable to be in the near future. Fruit farming is good, but soft fruits are not likely to ship well and the local markets are soon supplied, while the canning factories pay little profit for the surplus. Apple farming pays great profits just now, but I fear that in a few years, when the new orchards come in, there may be difficulty in finding a market for the enormous crops they will produce. I may well be mistaken in this, however. Those who are in the business assure me that I am.

Dr. Morris of New York is enthusiastic over nut farming, and the figures I have seen as to the results of raising the finest pecans justify all he has said. But going on the principle that it is best for you to do that which you know most about, it seems that the raising of drug-plants would be most favorable to a retired physician. The results obtained by Johnson in raising belladonna are significant. Instead of finding that the cultivated belladonna becomes worthless, as is the case with some other cultivated drug-plants, by applying scientific principles to the cultivation he succeeded in producing a higher grade of belladonna than any previously supplied to the market, a grade which commands the highest price in the market, and is worth it. This is a very different matter from the pre-alkaloidal method of raising plants, when "digitalis" was simply "digitalis," whether it contained any medicinal value or not.

I am putting out this paper because there are about ninety-nine thousand physicians who can verify most of the statements herein made by their own observations; and I am hoping that they will do so, because I believe that the discussion of this subject will be of interest and value to many physicians. As we become more and more hampered by legislation, and our income as well as our privileges become more restricted, many of us arrive at that stage when we disgustedly exclaim, "What's the use!" and are ready to quit, especially if we have arrived at that age when advancing cerebral sclerosis pre-

vents the ready absorption and assimilation of the new ideas and methods to which the practice of medicine seems to be shifting. So there you are!

You tell me the examining boards require a knowledge of all the anatomy you forgot twenty years ago, the chemistry that has arisen since you studied, the laboratory methods it would cost you a year's study and $1000 to acquire—and for all that you would at best have the legal right to begin again at the bottom, and—you are perilously near the age for Oslerism! But, Doctor, do you know that the finest pecans are as big as an egg and bring sixty cents a pound—and that the best digitalis leaves cost $2500 a ton—and that Carneaux homers breed ten pairs of squabs a year that weigh a pound each at four weeks—and that certain narcissus bulbs bring a dollar each—and that five acres of Washington apples pay $5000 a year net—and that ducks furnish three profits, ducklings, eggs and feathers—and that hydrastis root is scarce and constantly higher in price—and that a change of pasture is good for man or beast?

Then hide it not, the music of the soul,
Dear sympathy, expressed with kindly voice,
But let it, like a shining river, roll
To deserts dry—to hearts that would rejoice.
Oh! let the sympathy of kindly words
Sound for the poor, the friendless and the weak;
And he will bless you—He who struck those chords
Will strike another when in turn you seek.
—John Boyle O'Reilly.

TREATMENT OF APPENDICITIS

In *The New York Medical Journal* of May 1 Beverly Robinson gives the following treatment for appendicitis: (1) Rest in bed; (2) the ice-bag or hot-water-bag; (3) laxative enemas; (4) codeine every hour, by the mouth, in small doses; (5) in rare instances only, morphine hypodermically, and this only for excessive pain, not otherwise relieved. Whenever the stomach tolerates it, 10 grains of salicin in cachets every two to four hours. This gives a practical, rational, effective treatment of appendicitis.

During the acute stage only liquid food in small quantities should be permitted. Whenever an abscess is well defined, it should be opened and drained. Prompt operation is the only hope when perforation occurs. "A dose of castor oil and blue mass, taken in time, for adults and children, and sweets and alcohol cut off for a while from daily use, would save many a patient from operation and from abdominal pain and distress.

HYDROPHOBIA: FRIGHT: NEWSPAPERS

It is a source of surprise to the ordinary superficial reader that there still remains an unresolved residuum of people who refuse to accept as completely proven the work of Pasteur and his followers in regard to rabies. There has always been a proportion of doubters as to this disease, strong as is the evidence in favor of its existence.

Youatt, the celebrated veterinarian, was one of those who did not believe in rabies, and it is said that he allowed dogs which had been pronounced rabid to bite him, even as many as one hundred times or more, without rabies ever developing.. Finally, however, he was induced to doubt the correctness of his own belief in so far that through dread of rabies he committed suicide.

Prof. Zuill, formerly at the head of the veterinary department of the University of Pennsylvania, was likewise a doubter of the existence of rabies. He stated that he had never found distinct evidence of its existence in dogs examined by him. Out of hundreds of these animals, dying of various diseases or killed experimentally, he never failed to find rubbish in the stomach, and this was at that time taken as conclusive evidence of the existence of rabies in the animals.

There can be no question that a number of those cases attributed to rabies were either forms of septic poisoning, due to inoculation through the teeth of the animal which possibly had been devouring carrion, or simply cases of fright. To the latter may be attributed all those cases in which the persons imitate the barking of

a dog, that being never a symptom of true rabies.

Neither Pasteur nor his followers have ever succeeded in demonstrating a micro-organism as to the cause of rabies.

Another consideration which is not without significance is this: Previous to the Pasteur treatment the carefully kept statistics of France and other European countries showed a certain number of deaths each year from rabies. There were not many, probably four or five. Since the Pasteur treatment has been introduced, there have been inoculated each year several thousands of individuals who are supposed to have been thereby saved from rabies; but the number of yearly deaths from this disease as recorded in these countries is just about the same as it was before the Pasteur treatment came into vogue. If there would have been four or five thousand deaths from rabies yearly had it not been for Pasteur's treatment, why were these not recorded previously? The inference seems to be that, as probably just about as many people were bitten by rabid dogs as before, the vast majority of persons so bitten would not have contracted hydrophobia anyway. At any rate it is difficult to account, on the basis of these statistics, for any favorable influence whatsoever resulting from the Pasteur treatment.

These are the considerations which led the distinguished French clinician, Prof. Peter, to refuse his acceptance of the Pasteur doctrine. Some years ago it was announced in the daily papers that Peter had been himself bitten by a rabid animal and then submitted to Pasteur's treatment. Investigation, however, showed that is was a newspaper hoax.

We are not opponents of the Pasteur treatment of hydrophobia. Were we bitten by a rabid animal we should undoubtedly resort to it ourselves. Nevertheless, we are sorry to say that these very serious objections have long since been stated, and have as yet not been disproved by the Pasteur adherents; and it is our belief that the Pasteur institutes would soon cease to be profitable if it were not for the sensational newspaper at whose door may properly be laid many another folly equally as silly and as productive of harm. The news (?) paper, while a great blessing, is easily made into a great curse.

The sweetest lives are those to duty wed,
Whose deeds, both great and small,
Are close-knit strands of an unbroken thread,
Where love ennobles all.
The world may sound no trumpets, ring no bells;
The Book of Life the shining record tells.
—Mrs. Browning.

SODIUM SUCCINATE IN THE TREATMENT OF GALLSTONES

I have used sodium succinate in the treatment of gallstones for more than a quarter of a century. In that time I have not had a single case in which the remedy failed; that is, in those cases in which the drug is appropriate. Sodium succinate is not a remedy for the paroxysm. I do not believe it has any power whatever in dissolving gallstones. My conviction is that it acts simply by disinfecting the biliary passages and subduing the inflammation.

This infection is the true enemy with which we have to contend. When that is gone and the biliary passages are in a healthy normal condition, the presence of the gallstone is no more significant than that of a bullet encysted in the tissues. When the gall-bladder becomes inflamed, the presence of the calculus acts as an irritant and excites efforts for its expulsion, and then it is when we have an attack. At other times the stone may lie there, even during the lifetime of its possessor, without arousing a suspicion in his mind of its presence. This is abundantly proved by the innumerable autopsies at which gallstones have been discovered, the presence of which was not suspected during the life of the person.

Give five grains of sodium succinate before each meal and on going to bed. Continue this as long as the patient has any evidence whatever of the presence of gallstone, even such as a slight degree of bile, a mere trace, in the urine, would indicate. The medicine is to be continued from one to three months longer. I usually tell my patients that they will have to take

the medicine for one year. During this time the paroxysms will continue, but they will be less frequent and less severe, at each successive return, until well within the time stated they cease entirely.

This treatment is applicable to all ordinary cases of gallstones. When a calculus has started on its passage, has become impacted and is ulcerating its way through, or when any other mechanical condition exists which requires mechanical methods for relief, the treatment by sodium succinate or by another drug is not indicated. Surgical intervention is imperatively demanded and should not be postponed after the diagnosis has been made. There are times, as I say, when surgery is imperatively indicated, but mere presence of a gallstone does not constitute such an indication, since very few of the cases presenting themselves to the physician are of the character described.

My personal experience with this drug in this malady has now been reinforced by reports from many physicians who have accepted the suggestion and tried it with similar success.

Three months ago a lady applied to me for recurring abdominal cramps,; these were becoming more frequent and more severe, so that no week elapsed without an attack. The attacks had not become typical since they were not yet followed by jaundice. The lady was put upon the use of sodium succinate as above advised. The cramps stopped at once and have not since recurred. Here it seems as if the malady had been taken in its incipiency, with correspondingly good results. It seems as if it were safe to assume that abdominal cramps are due to gallstones, until the contrary is proved. The vast probability is in favor of this diagnosis proving correct.

THE CURE OF CANCER

The British Medical Journal quotes Zangemeister as saying that no method has yet been suggested by which cancer can be cured with anything like the certainty of the knife. There are three ways in which cancer might be cured: first, the attempt to destroy the cancer-cells. He mentions here heat, cold, magnetic and electric waves, light, Roentgen and Becquerel rays, radium, Tesla's current, arsenic, mercury, cholin, trypsin, bile, nuclein, and Bier's heterogenous blood treatment. The difficulty in the latter lies in the production of antibodies when heterogenous antigens are employed. All attempts in this direction have hitherto been unavailing, but the idea is not hopeless.

The second method of attack is to apply means of dissolving the cancer-cells. Cytolysins have been produced by Schoene for mouse carcinoma. The difficulty lies in the uncertain production of antibodies when heterogenous antigens are employed. The author has recently attempted to use cancer-cells from other patients, or from the same patient.

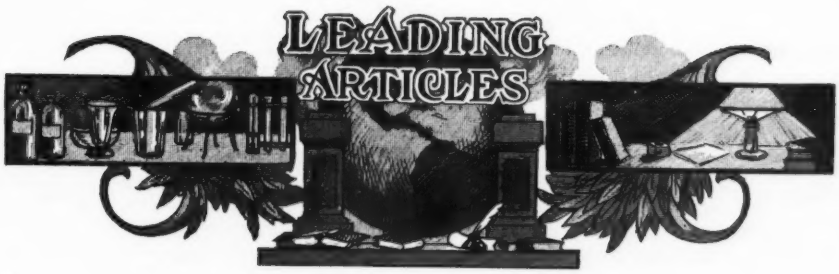
The third method is to neutralize the product of the cancer. Many workers have determined that abnormal ferments exist in carcinoma. Neuberg considers that radium acts by destroying the cancer ferments. Hofbauer suggests employing antitrypsin. The weakness of this depends on the impossibility of attacking the cancer ferments alone.

His conclusion is that up to the present no nonoperative treatment of cancer has been devised which offers a patient a reasonable chance of cure.

Our doubts are traitors and make us lose the good we oft might win, by fearing to attempt.
—Shakespeare.

BE SURE OF YOUR ROPE

The man being lowered into a mine-shaft hoped that the rope-manufacturer was honest. He didn't know, and it worried him. He had only bought a "rope." So the doctor just in proportion as he becomes alive to the real situation in drugdom must hope as to the quality of the drugs he uses unless he knows the standard and can trust the manufacturer whose goods he is using. To just buy or prescribe "rope" is not enough.



Joseph and John Warren

The second article in Dr. Butler's series of sketches of great American physicians. The Warren brothers were not only ardent patriots during the Revolution; they were pioneers and leaders in New England medicine

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DURING the turbulent days which culminated in the disruption of the political bonds uniting the American colonies with Great Britian two of the brightest and most progressive minds in the medical profession were those of Joseph and John Warren of Boston. They were men who thought for themselves and acted fearlessly on their convictions, scorning the beaten path of tradition and defying precedent when it was found to be in conflict with the results of their own reasoning and experiments.

Inherent in both of them was a spirit of intense patriotism, fostered by the exigencies of the times. In Joseph, the elder of the two brothers, this spirit was developed to an extraordinary degree, eventually leading him away from his profession and luring him on to a hero's fate at Bunker Hill at the early age of thirty-five. They were the sons of a farmer and descendants of a sturdy mariner.

Early Life of Dr. Joseph Warren

Joseph Warren was born at Roxbury, June 11, 1741, and after graduating at Harvard, in 1759, was appointed master of the Roxbury grammar school. He studied medicine under Dr. James Lloyd, and at the age of twenty-three established himself permanently as a physician in Boston. By his successful treatment of smallpox patients, during the epidemic that scourged the New England cities at that period, he acquired a high reputation among the faculty. One of his most illustrious patients was John Adams, afterward president of the United States, who was so favorably impressed with the young doctor and his methods of treatment that he retained him as his family physician as long as his services were available.

Besides his intellectual gifts Joseph was endowed by nature with manly beauty and a graceful figure. He had an elegant address, was a paragon of culture and good-breeding, and the doors of polite society were always open to him, while his frank and genial manner made him a general favorite. One of his strongest attributes was his great love for his fellow men. He had an ear ever open to the claims of want, and a hand ever extended to afford relief, though he knew that the only compensation he could expect for his services was the gratitude of those whom he had helped.

It was this disposition to give his time and attention to the poor that, more than any-

thing else, drew the public eye upon him in the early part of his medical career. Avarice had no place in the composition of his nature. He was even neglectful to a fault in pecuniary matters, but happily it was not a fault that could lead to his financial embarrassment. Such a contingency had been obviated when, in 1764, he married Miss Elizabeth Hooton, a young lady who inherited an ample fortune.

Imbued with the qualities that characterize a good physician, the path before Joseph Warren to success was easy and wide, but his love of country and of liberty was ardent and absorbing, and he was irresistibly attracted to a wider stage of action. His zeal in the cause of patriotism rendered him indifferent to bright prospects of professional advancement, and he soon gave himself heart and soul to American freedom, laboring with tongue and pen to bring others to his way of thinking.

Political Opinions of Joseph Warren

In politics he was in advance of public opinion in general, holding the doctrine that the British Parliament had no right to levy a tax of any kind upon the colonies. The passage of the stamp-act, in 1765, led him into print, several burning articles from his pen appearing in *The Boston Gazette*. He became intimately associated with Samuel Adams, whose warm admiration and regard for the young patriot was openly expressed, and who came to regard him as a stanch and clear-headed ally.

One of Warren's articles, published over the signature of "A True Patriot," so incensed the Tory governor of the colony that he brought the matter before his council and made an attempt to prosecute the publishers of *The Gazette* for giving currency to seditious libels. When the grand jury refused to return an indictment, this same Governor Barnard endeavored to cause the arrest of the publishers on a charge of treason; but this also failed.

In the summer of 1768, stirred by the affair of the sloop Liberty, Dr. Warren, accompanied by a committee, waited upon the governor at his country-seat at Jamaica Plain and protested against the impressment of seamen and the enforcement of the revenue laws.

He was brave, active, indefatigable. He possessed in a high degree the essential qualities of a leader—popular manners, amiable temper, ready and vivid eloquence, intense energy, fearless ardor, and exquisite prudence. At every town meeting held in Boston, from the arrival of the British troops in October, 1768, to their removal in March, 1770, his voice was heard and his influence felt. After the socalled "massacre" on March 5 of the latter year he was a member of the Committee of Safety, and a few months later he was appointed on a committee to consider the condition of the town and send a report to England. A Tory phamphleteer of that time undoubtedly had Dr. Warren in mind when he wrote: "One of our most bawling demagogs and voluminous writers is a crazy doctor." When, in 1772, Samuel Adams declined to deliver the annual oration on the anniversary of the Boston massacre, Dr. Warren took his place and acquitted himself with much distinction.

His Activity in the Independence Movement

He was active in the caucus which at first met secretly in private houses, but after 1773 in a public hall, inviting the attendance and cooperation of workingmen. He and Samuel Adams were the brains and soul of the party movement in Massachusetts, and when, in August, 1774, the latter went to attend the meeting of the Continental Congress of Philadelphia, the sole leadership of the party in Boston devolved upon Warren.

The progress of events had by this time made him ready for extreme measures. At the Suffolk County convention, which was held at Milton in September, he read a paper prepared by himself in which he boldly declared that a king who violates the chartered rights of his people forfeits their allegiance. The resolutions, which were adopted unanimously by the convention, have since been known as the "Suffolk Resolves." In their entirety they virtually placed Massachusetts in an attitude of rebellion, ending by threatening General Gage

that, should he venture to arrest anybody for political reasons, they would retaliate by seizing upon the crown officers as hostages. The Continental Congress, to which a copy of these resolutions was sent, not only approved them but pledged the faith of all the other colonies that they would aid Massachusetts in case a resort to arms became unavoidable.

Toward the end of 1774 Dr. Warren was at the head of both the Provincial Congress and the Committee of Safety, which was charged with the duty of organizing the militia and collecting military stores. He was practically dictator, with none to dispute his authority except the British troops. It was tacitly agreed that his disinterestedness and wisdom made him the safest depository of power and executive of the popular will. On more than one occasion, when the thoughtless enthusiasm of hotheads would have precipitated local conflicts, his controlling mind exerted a restraining influence in time to preserve the peace.

The Approach of War

The fifth anniversary of the Boston massacre was to be celebrated in the Old South church, March 5, 1775. As the time drew near it became evident that the British troops were in an ugly mood, and trouble was feared. Certain of the officers were heard to declare that whoever should have the hardihood to deliver the oration on this occasion would certainly be killed. When these threats reached the ear of Dr. Warren he promptly asked permission to be the orator of the celebration, and was granted that dangerous honor. On arriving at the church he found the edifice so crowded with people that his entrance in the usual way would have been attended by much difficulty and delay, so he procured a ladder and climbed through a window at the back of the pulpit. Then he delivered a ringing address on the "baleful influence of standing armies in time of peace," hurling his shafts of eloquence into the very faces of the half-hundred British officers who occupied the forward pews and lined the pulpit steps. Aside from the hisses and groans with which these redcoats sought to annoy the speaker, there was nothing to disturb the peacefulness of the meeting.

It was not long after this that Warren, together with Samuel Adams and John Hancock, was, by order of the ministry, excluded from the pardon offered to other malcontents. The revolutionary utterances of these men, their persistent activity in working up sedition among the people, their audacious and violent language in criticising the oppressive measures of the King's minions, and the sledge-hammer blows with which they drove many a vital but forbidden truth into the minds and hearts of the tax-burdened people, placed them among the responsible offenders whose transgressions were not to be overlooked or condoned.

The meetings of the safety committee were held in Concord, and Warren did not attend them during the month of April, doubtless for good and sufficient reasons. He had resolved to abandon his profession and enter the army; and as the crisis approached he devoted some time each day to a regular practice of the manual of arms. It is evident from his letters that he watched narrowly the movements of the British army. As he knew the number of the troops and knew also the preparations for defense that had been matured by the patriots, he was confident that in case offensive operations were attempted the militia would appear in the field in sufficient numbers to defeat them. He was active with the Committee of Safety in organizing a watch and couriers to alarm the country in case any sally were made from the army at night. His vigilance was tireless.

He Sends the Warning to Lexington

On Tuesday evening, April 18, it was observed that troops were marching toward the bottom of the common. A shrewd patriot who was on watch hastened to inform Warren of the fact. The doctor immediately sent William Dawes, by way of Roxbury, to Lexington, to put Hancock and Adams on their guard against a possible approach of the enemy. About ten o'clock

he dispatched Paul Revere by way of Charlestown to give the alarm to the people dwelling on the roads toward Concord.

In complete ignorance of these movements, a detachment of eight hundred grenadiers and light infantry embarked in long boats at the foot of the Common and moved over Charles River on a secret expedition to destroy the stores collected at Concord, and, it was reported, to seize Hancock and Adams. The lights of the watch-fires, the sounds of the bells and the signal-guns proclaimed the faithfulness with which Warren's messengers did their work and foiled the plans of the royalists.

Warren was at his home the next morning, when he heard the news of the firing at Lexington and realized that the time had come for fighting in the open field. He left his patients in the charge of his pupil and assistant, William Eustis, and rode off to the scene of action. He stopped at the Black Horse tavern in Menotomy (now Arlington) long enough to meet with other members of the Committee of Safety and to hold a consultation with General William Heath, whom he met there.

The British were in retreat from Lexington. By the time they reached Menotomy, headed by Lord Percy, the militia had been put under the command of General Heath and they were accorded a warm reception. The fighting here was the severest of the day. Dr. Warren was conspicuous in the field, maintaining his place close beside the commanding officer, and although a lock of his hair was carried away by a musket-ball, he was never seen to flinch. Perez Morton, speaking of him in this engagement, said: "He appeared in the field under the united characters of the general, the soldier and the physician; here he was seen animating his countrymen to battle and fighting by their side, and there he was found administering healing comfort to the wounded."

He Urges Washington as Commander-in-Chief

In the weeks that followed this conflict he was particularly active in urging on the military preparations of the New England colonies. He urged the appointment of Washington as commander-in-chief of the American force, in place of Artemas Ward, who was favored by certain persons for local reasons. He was unanimously chosen president of the Provincial Congress at its meeting at Watertown, May 31, and was thus made the chief executive officer of Massachusetts under the provisional government. Declining the post of surgeon-general, which was offered him, he accepted that of major-general on June 14, and became second in command of the Massachusetts forces. On the 16th he presided at a session of the Provincial Congress, and passed much of the night in the transaction of public business.

June 17th a Marked Anniversary

It appears that the 17th of June was a marked anniversary in Dr. Warren's career, a coincidence to which his biographers call attention. It was on this day, seven years before, that in a town meeting he had recommended the people to vindicate their rights at the hazard of fortune and life. On the last anniversary, acting still more prominently as a public leader, his morning hours had been full of anxiety because for the first time he had to meet an exigency without the guidance of Samuel Adams, but which had been changed to joy in the evening because of the success of the town meeting, the choice of delegates to a continental congress, and the signs that heralded American union.

During the twelve months he had passed through since then Warren may be said to have lived an age. The year had been crowded with a shower of happenings, and those serious exigencies that occur in the rapid progress of great events might have bewildered a lesser mind. In meeting them mediocrity too often fails, but genuine ability rises to the mark of rendering important public service. Growing steadily in wisdom and self-reliance, Warren had risen grandly to each and every occasion, discharging the duties which fell to his lot in such manner that one of the wisest of his contemporaries said, "He filled each of the numerous departments of life that were as-

signed to him so well that he seemed born for no other."

Whatever he did, he did well. His mental balance and calm judgment told him how to do things, and he did them without a mistake. An enthusiast for liberty he certainly was, but no one appreciated more than he the necessity of joining to it that respect which power only can command. His ideal was liberty without licentiousness, and to gain this for his fellow-men he was ready to brave any danger, endure any hardship, even death itself, for he was endowed with a courage that would have been rash absurdity had it not been tempered by self-control.

The Battle of Bunker Hill

Perhaps Warren thought of this anniversary on the morning of June 17, 1775, but it is hardly likely, engrossed as his mind must have been with matters of graver import. On that morning he met the Committee of Safety at General Ward's headquarters, on Cambridge Common, with whom he remained till about noon. At that hour, hearing that the British troops had landed at Charlestown, he mounted his horse and rode over to Bunker Hill.

It is recorded in some of the chronicles of that time that both Putman and Prescott successively signified their readiness to take orders from him, and were prepared to follow his lead. But he promptly refused to take command, saying that he had come as a volunteer aid to take a lesson in warfare under the leadership of such experienced and competent generals. He asked to be shown the place of greatest danger, and went to meet his death. Near the end of the battle, when the retreat of the American forces had begun and he was trying to rally the militia, General Warren was struck in the head by a musket-ball and instantly killed.

Warren's death was a tremendous loss to the colonies, and one which filled his compatriots with despair for a time; but his example stimulated and cheered patriotic zeal everywhere. No grander figure had ever stood in the fore-front of a nation's life; no American had so proved himself the model of a patriotic hero. His was a life freely consecrated to liberty and cheerfully laid down. Had he been spared, his zealous energy and abilities would have taken high rank in the councils of the young republic, but the poetic beauty of his character seems fitly crowned by an early and glorious death.

His body found a resting place in the tomb of George R. Minot, in the Granary burying ground, whence it was removed in 1825 to the Warren tomb in St. Paul's church, Boston. It was again removed in 1855 to Forest Hills cemetery, where it now reposes. Two years after the battle in which he fell Warren was voted a monument by the Continental Congress, but no further steps were ever taken in the matter by the Government, and it was not until 1794 that a monument was erected on the spot where he fell by a Masonic lodge in Charlestown. It was composed of a Tuscan column of wood, eighteen feet high, resting upon a brick pedestal that rose ten feet from the ground and was eight feet square. The column was surmounted by a gilt cross entwined with Masonic emblems, bearing the inscription "J. W., aged 35." This monument stood for forty years, when it gave way to the stately granite obelisk known as the Bunker Hill monument, which was unveiled on the famous hill, June 17, 1857.

John Warren—the Younger Brother

John Warren, twelve years the junior of his martyred brother, was much the same type of man. He was just as zealous a patriot, just as earnest and enthusiastic in the support of his ideals, just as strong in physical and moral courage, just as intellectual and refined. Perhaps it was because he matured too late to be caught in the whirlwind of agitation that swept his brother into the sea of politics; or it may have been that after calm deliberation he decided that his duties as a physician were paramount to any service he might be able to render to his fellow men in any other capacity. Certainly he never abandoned his profession, but became one of its brightest ornaments.

He was born in the family homestead in Roxbury, Mass., July 27, 1753, and was graduated at Harvard in 1770, after which he studied medicine for two years with his brother, Joseph. He began practice in Salem, where he attained such rapid success that his fame began to spread throughout the colonies before he had reached the age of twenty-five.

With the family trait strong within him he did not hesitate to go where duty called or to undertake any task requiring a high order of courage and self-sacrifice. He was at the battle of Bunker Hill, attending the wounded on the field and coolly exposing himself to the fire of the British. He received a bayonet wound in endeavoring to pass a sentry in order to see his brother. From that time to the close of the war he devoted himself to army work, laboring with tireless energy in the hospitals and on the field.

After the battle of Bunker Hill he was appointed hospital surgeon, and in 1776 he accompanied the Continental army to New York and New Jersey. He was at Trenton and Princeton, where he rendered such distinguished service that the whole army came to know him and to admire him for his fearlessness and kindly disposition. From 1777 till the dawn of peace in America he was superintending surgeon of the military hospitals in Boston.

The Foremost Surgeon in New England

For nearly forty years John Warren occupied the foremost place among the surgeons of New England. He was recognized as the leading medical expert and surgical scientist of the times. In 1780 he demonstrated anatomy in a series of dissections before his colleagues, and in 1783 he was appointed professor of anatomy and surgery in the newly established medical school at Harvard. When the Massachusetts medical society was organized he was chosen as its first president, an office which he held continuously from 1804 until his death in 1815.

Dr. Warren's avocations outside of his profession of medicine and surgery were pursued with the same intelligence and zeal that characterized his regular work. He was president of the Agricultural Society and the Humane Society in his native state. He was a fluent writer and speaker. His public addresses on many notable occasions were rich with eloquence, fervor and many of the qualities that make for real oratory. His Fourth-of-July oration in 1783 at Boston has been highly praised as a masterly effort.

His Literary Contributions

John Warren was the author of "Mercurial Practice in Febrile Diseases," a volume that had a wide vogue among the fraternity, and was esteemed as the best and most advanced treatise on the subject that had ever been published. In addition to this he wrote "Memoirs," addressed to the American academy, "Communications," published by the Massachusetts Medical Society, an "Address" to the Freemasons, in whose lodge he was a grand-master, and numerous articles in *The Journal of Medicine and Surgery*. He possessed a clear understanding, a strong mind, a disposition humane and generous, with manners easy, affable and engaging, but earnest, active and sanguine in the pursuit of scientific discoveries in the art of healing. He died in Boston, April 4, 1815.

Active-Principle Therapy Today

Some of the influences which have contributed to the growth and popularity of this powerful therapeutic movement and upon which its present strength rests

By WILLIAM F. WAUGH, A. M., M. D., Chicago, Illinois

LESS than two decades ago circumstances led us to make a survey of the field of therapeutics. We found that with physicians and public alike the old faith in drugs was dying. Scarcely a newspaper could be picked up which had not some slur on drugs and their administration, some suggestion as to the physician "killing his patient" instead of curing him. In medical journals, in addresses at medical societies and in conversation between physicians themselves there was constant reiteration of a profound skepticism regarding the value of drugs. Men seemed to vie with each other in the endeavor to frame smart sayings—nasty sayings—expressive of their utter contempt of drug-medication; and the entire profession seemed to be turning away from drugs to grasp at any and every other therapeutic method which could be devised.

Why was Drug-Therapeutics Deserted?

Since for every effect there is an adequate cause, we looked to find something more than mere whim or change in fashion to account for this apparently unanimous desertion of drug-therapeutics. We believed that it was safe to assert that the materia medica never would have been thus abandoned had it been adequate to meet the requirements of the profession and the public. What, then, was the matter with our materia medica?

No very prolonged or extensive investigation was necessary to furnish an adequate reply to this query—drug-therapeutics was being abandoned because it was not good enough to meet our needs; and the first fatal objection to drugs was their uncertainty. The physician never knew exactly what effect a drug was going to have or how much of that effect it would manifest until he tried it on the patient; and the variability between different specimens of the drug was such that each new sample obtained from the pharmacy had to be tried over again. This effectually destroyed the possibility of anything like precise and vigorous medication, since the uncertainty of the drug compelled the physician to be cautious in its administration, watching to see what effect it might have; and in too many instances these preliminary trials took up the time during which prompt and effective medication might have caught the disease and broken it up while still in the formative state.

Causes of Failure in Medicine

Timidity, hesitation and delay in meeting an attack by a powerful and determined enemy are fatal in medicine as in war; and so the physician was compelled by necessity to seek more effective measures of meeting the onslaughts of disease or else to retire from the field and acknowledge himself incapable of coping with the situation.

This fatal defect of uncertainty extended to the field of experimental medication, from which we draw that knowledge of the action of remedies which directs us in their application. We found that this same uncertainty had compelled the physiologic experimenters to resort to the active principles of these medicines; and from experiments conducted with atropine, strychnine, quinine, etc., they determined the powers which would indicate the therapeutic applications of belladonna, nux vomica, cinchona, and so forth. But why, after extracting these active principles and determining with scientific precision the effect which they would exert upon the human body, in health and disease, should we throw them back into the uncertain and variable compounds of active and inactive

material from which we had extracted them, and then administer them on the data obtained from the study of the isolated active principles? Why not use the latter alone, since we had such precise data as to their power?

The "Awkwardness" of Change

The only reason that could be given was that the profession had been so long accustomed to the use of the uncertain preparations of the galenics that they found it awkward to change. It was awkward for our ancestors to change from pounds, shillings and pence to the decimal system, and we still find it awkward to change from the ordinary weights and measures to those of the metric scale, notwithstanding the enormous advantages undeniably offered by the latter. If anybody thinks it is an easy matter to change the world from its accustomed ways to others, which yet everybody acknowledges to be preferable in every manner, let him try it! He will form a new and enlarged conception of the power of inertia, the force of conservatism, the influence of ingrained habit.

The study of a plant-remedy shows that it contains certain ingredients which exert a manifest effect upon the human body, and hence are termed "active principles;" while others are not found to exert any effect whatsoever, and hence are known as "inert" substances. It seems obvious that no good can be accomplished by the administration of bodies which exert no effect. These inert substances, woody fiber, gum, etc., are also objectionable in that they add to the bulk of the dose, render it disagreeable to the taste and less likely to be retained by the stomach, hence they are with propriety excluded from the medicine.

This leaves the group of active principles. Among these there are some which are almost always present that are objectionable in that they exert an action we do not want but interfere with some action we do want. Reference is made here to the tannic-acid group, which renders other active principles less soluble, interferes with digestion and checks the absorption of the active principles into the circulation.

Excluding the foregoing, we have left a group of active principles that represent the characteristic action of the plant. Were these invariably present in the same quantity and proportions, we could substitute these for the entire plant. This is the ideal presented by the specific medicines of the house of Lloyd. This great chemist still clings to the old idea of a characteristic therapeutic action of a plant as an entirety.

Variation in Active-Principle Strength

Unfortunately, however, we find that these active principles vary so markedly in the quantity and relative proportion of the various components that the action of the group may vary over the entire circle of therapeutic action. We take as a well-known instance that of opium. Of the twenty-six or more active principles contained in this storehouse of valuable weapons, some, like morphine, exercise pure sedation, others, like thebaine, equally pure stimulation; the rest are strung out on a line between the two, with certain offshoots, such as narcotine, which is a specific antimalarial agent similar to quinine, and its derivative stypticin, which is an exceedingly valuable hemostatic.

Morphine varies in quantity present in the poppy exudate from 18 percent or more down to none at all, and each of the other active principles varies in similar degree. It is obvious that the actual effect of the opium as a whole depends upon the quantity of each of these agents present, and we may have on occasions almost pure stimulation and on others nearly pure sedation; the true effect being always that of the balance after subtracting the weaker from the more potent.

Many other instances occur in which plants contain antagonistic alkaloids, the best-known being perhaps hyoscyamus, which contains one active principle which induces sleep and another preventing it; jaborandi, of which one principle causes sweating and another checks it; gelsemium, in which one principle is a sedative while another resembles strychnine in its stimulant powers.

In other cases the best-known active principles present an allied effect, as in cinchona,

where four out of the thirty active principles are excellent antimalarials. Of the others scarcely anything is known. In hydrastis we have three active principles, one of which powerfully contracts the smaller blood-vessels, while another exercises a specific contractile control over the connective tissues, and the third antagonizes these effects almost directly.

The Separation of the Active Principles

The next step appears so obvious that it is difficult to see why it has not been taken long since, and that is, the separation of these active principles and the use of each one of them for exactly the effect which it exactly induces. Why should we take the chance of opium relieving pain and inducing sleep when we *know* that morphine will do it? Occasionally opium, instead of doing this, is guilty of inducing convulsions.

This rational step has been taken at last. A large section of the medical profession has put the separated active principles to the test, and we can now begin to see definitely the results accruing from this change in drug-therapeutics. Some persons begin by looking upon it as merely the adoption of a rather better line of drugs than those previously in use, and apply the active principles in strict accordance with their custom of applying the older preparations.

But the active principle rarely represents either the virtues or the vices of the parent plant in their entirety, so that one may be exactly substituted for the other; but each active principle has a therapeutic place of its own. In many instances this corresponds almost exactly with that of the parent plant, excepting that the field of the active principle is much wider. Take for instance Juergensen and his followers, who administer quinine in doses of 60 to 75 grains, in the treatment of pneumonia; and the results secured from this system have yet to be excelled by any other therapeutic method. Just suppose that one should attempt to give Peruvian bark enough to parallel a 75-grain dose of quinine! By what possible means could the human stomach be enabled to take, retain and negotiate such a dose?

One of the most important results, therefore, following the substitution of the active principles for a crude plant-drug is an enormous widening of its sphere of influence. Take here as a characteristic example that of arbutin. Every plant containing arbutin has proved of benefit in the treatment of affections of the bladder, but the inestimable value of arbutin was not revealed, and could not be revealed until it was extracted and administered alone in doses reaching full 50 grains. Since this principle is accompanied in the native plant by thirty-five times its weight of tannic acid, it is absolutely impossible to obtain from plant or extract any but the effects of very minute doses, since even a single grain of arbutin—a very small dose—would be completely masked by the thirty-five grains of tannic acid associated with it. How, then, could we expect any stomach to withstand seventeen hundred and fifty grains (1750) of tannic acid poured in within twenty-four hours!

A still more important advantage accruing from the use of the active principles is that their certainty of action and the precise and complete knowledge which we have of those actions enable us to prescribe them with confidence in the forming stages of acute maladies. This has resulted in the firm conviction, on the part of those accustomed to the use of these drugs, of their power to break up disease in this stage and prevent the malady becoming so fixed in the system that it must go through its regular evolution, uninfluenced by medication. Those who use the active principles believe in the "jugulation" of acute diseases; those who do not use active principles deny the possibility of such action. Both are right; the first can jugulate disease, the others can not.

The Change Produced in the Doctor Himself

The most interesting feature of the twelve-years' study of active principles and their use in therapeutics, to the group of men who have specially advocated them, is the change worked in the character of the practician. Who could have believed that such momentous results would come from that one first step, that one firm footing found in the

morass, the certainty of action on the part of the drugs employed?

Through this the physician has returned to his true place in the sick-room. He has resumed the practice of carefully judging the symptoms presented. He has therefore been forced back to the study of pathology and modern physiology, so that he may the better recognize the deviations from health presented by the patient. He has been forced to watch the course of the malady day forced to watch the course of the malady from day to day, that he may apply his highly specialized weapons with such accuracy as to ensure results. He has become a better physician thereby, even as to his diagnostic powers; and he has become a better practician as a therapeutist. He has grown positive in his ways of speech and of action. He predicts results with a confidence never known before; and better yet, his predictions come true. His patients get well much quicker than they did before, and the doctor has more rest and less worry. When he leaves his patient he is not followed by a haunting dread of what the medicine may or may not do, for he *knows*. This doctor does not have to go back in the afternoon to "see how the medicine worked," because he *knows*. He lies down at night and sleeps, because he *knows* conditions will be better next morning; and since he knows what he is about, his patients have more confidence in him, because they realize that he knows.

This is no imaginative picture. It is one of the most interesting features of the active-principle movement to see the change that occurs in the physician, although he himself is usually totally unconscious of it. As a rule his patients have recognized it long before he himself does.

We Must Study Nature, Not Disease-Names

We have not reached Utopia yet. We have not made a nickel-in-the-slot system out of it. Instead of being able to name a disease and apply a specific remedy, we have been led by our study away from the names of disease to the study of diseased conditions. Clinical diagnosis does not interest itself so much with the name and classification of the disease, as with the study of disordered function exhibited in the sickroom.

It is nature, not the textbook, which we must study. Not that we refuse to avail ourselves of every advantage afforded by the study of books or the teachings of the laboratory. The better practician a man is, the better applicator of active principles, the more he will look for help to these sources. But his greatest study is in the sick-room; the patient himself and his phenomena are the most important of all the books he is called upon to read. The others are simply aids by which to translate the page before him.

The work is far from complete. Our remedies are not yet studied with the completeness they require. Physiology has made such strides in the last quarter century that the whole materia medica needs re-study, especially in the light of the functions of the internal secretions, a knowledge which is only beginning to permeate the mass of the profession. We find that instead of being able to limit our practice to a few remedies, we have not nearly enough for our needs. The study of diseased function reveals opportunities for the application of remedies which have not yet been supplied us.

More Attention to Neglected Active Principles

This must inevitably induce more attention to the heretofore neglected active principles. Of the twenty-six principles found in opium we use morphine principally, codeine to a certain extent, narceine scarcely at all, narcotine is neglected, while of the others no use whatever is made. Of the thirty active principles contained in cinchona we have actually no knowledge whatsoever of more than six of them, excepting possibly the three forms of tannic acid, of which we know simply that they are astringents, but in what particulars they vary from the ordinary forms of tannic acid or differ between themselves we have not as yet been informed. Hundreds of other active principles have been isolated by the chemists, that have not

yet received such study as to enable us to place them in our armamentarium.

It is evident, therefore, that the man who proclaims drug-therapeutics to be an exhausted field, and drugs only worthy to be thrown in the scrap-heap, simply displays his own ignorance. The most promising field ever opened to the physician spreads invitingly before him. It is practically untrodden. The opportunities for new investigations, for primary observations, are unparalleled in the history of the science and art of medicine. All that is needed is properly qualified workers.

Eye-Symptoms in General Disease

This is the fifth article of a series in which is being discussed the diagnostic and prognostic importance of a careful study of the eye, from the standpoint of the general practician

By THOMAS HALL SHASTID, A. M., M. D., LL. B., Marion, Illinois

V. Eye-Symptoms of Hysteria

THE ocular manifestations of hysteria form, beyond doubt, one of the most interesting and important symptom-groups in all the range of medicine: interesting because of their great peculiarity and manifold variety, important because of the aid they lend to the diagnosis of hysteria of the system in general.

The chief eye-symptoms of hysteria are:

1. Concentric contraction of the visual field.
2. Central scotoma.
3. Amaurosis.
4. Rapid fatigue of the retina.
5. Monocular diplopia and polyopia.
6. Micromegalopsia.
7. Photophobia.
8. Spasm and paralysis of the accommodation.
9. Spasms, pareses, and paralyses of various extrinsic muscles of the eye (contractures, etc.).
10. Anesthesia of the conjunctiva, the cornea, and of the skin of the eyelids.
11. Blepharospasm.

Concentric Contraction of the Visual Field

This is one of the queerest of all the queer hysterovisual affections. In order to understand it properly, we had better remind ourselves in the first place of some of the elementary facts concerning the normal visual field—facts which we learned in our student-days, but which, in part at least, have now perhaps escaped us.

In the first place, what is the visual field? Close one eye. Look straight before you with the open eye at some determined point. Now all the space to the right, to the left, above and below, and, in fact, in every direction in which objects can be seen, constitutes the socalled visual field. The point that is actually looked at is seen by the macula lutea, all the other points of the visual field are seen by the peripheral protions of the retina. Just where the optic nerve enters the eye is a scotoma, or blind spot, normally. That is normally the only gap in the whole field of vision.

Now, this normal visual field does not extend in every direction to the same distance, in other words, the circumference of the visual field by no means is circular. Inwardly it runs to only 47°; upwardly, a little farther—53°; downwardly, 65°; and outwardly, 95°. This is the extent of the visual field as tested with a white object, a bit of white paper for instance. For colors the field is smaller, and different for different colors. Blue objects have nearly, but not quite, as large a field as white. Yellow comes next; then orange; then red. Then,

finally, comes green, which has the smallest visual field of all the various colors.

We are now, I think, in a position to understand the contraction of the visual field which occurs in hysteria.

In hysteria the visual field contracts at the periphery, i. e., concentrically, and the contraction is greatest outwardly, i. e., on the temporal side. The field contracts, however, on all sides, though inwardly it now and then contracts but very little indeed.

One of the strangest things about this contraction of the visual field is that it oscillates, i. e., is different at different moments during the examination, thus causing the patient to appear to be trying to deceive the examiner. Sometimes the contraction will narrow the field greatly, then, again, but little, so that, unless the examiner comprehends the nature of the affection, he is likely to get out of patience.

This oscillation of the visual field, furthermore, *is pathognomonic of hysteria*. Therefore, in cases where this histrionic disorder is mimicking some general affection and the general practician is in very grave doubt as to the true nature of the malady, he can frequently set his doubts at rest by testing the visual field, because, if he finds an oscillating periphery, he can know to a certainty that his patient has hysteria.

It is well worth while to add that the fields for the different colors are differently affected, so that, often, the field for green is actually the largest and that for white the smallest.

Scotomata.—Closely connected with the concentric contraction of the visual field are what are known as scotomata, or islands of blindness in the field—other, of course, than the normal blind spot existing at the entrance of the optic nerve, which is 15° outward from the point of fixation and just a trifle below it. Sometimes a scotoma forms at the point of fixation, and then the patient sees nothing at which he directly looks. He can only see what he does not try to see.

Amaurosis.—Conceive of a central scotoma passing so extensively outward or a concentric contraction passing so extensively inward that the field of vision is obliterated entirely, and you are thinking of hysterical amaurosis. In fact, the meaning of the word "amaurosis," as we saw in our study of Bright's disease, means blindness without objective evidence. That is what you find here. No ophthalmoscopic changes, and the eye apparently normal externally, and yet the eye is blind.

Often only one eye is sightless, and, in some of such cases, remarkable as the fact may seem, the blind eye is blind only when tested by itself. Let *both* eyes be open, and you can carry the testing object, a bit of paper for instance, far to the temporal side of the blind eye (to a point, in fact, where the sound eye can by no possibility be doing the seeing) and yet the object is very distinctly seen. This looks like malingering, but it is not. It is simply one of the most peculiar things about the most peculiar disease in the whole nosology. It is also absolutely pathognomonic of that disease.

Rapid Retinal Fatigue.—Closely connected with the topic just considered is the rapid retinal fatigue of hysteria. This means that the eye, when you begin to test it, may possess normal visual acuity, but that, if you only keep on testing, the vision soon runs down, and the patient hardly sees at all.

I had a very peculiar experience in the early days of my practice which bears on this point. A lady came to me for glasses, saying she could read for only a very few minutes and then "everything faded away." I began, of course, by testing her without lenses. Then I began to add the glasses. Presently she could not see at all, either with lenses or without them. I dropped that eye in disgust and began testing the other. Presently that eye acted like its fellow: it could not see at all. I then returned to eye No. 1, and found it possessed of full visual acuity again. This made me a trifle angry; for, not understanding in those days the behavior of hysterical eyes, I thought that the patient was trifling, and I dropped a few remarks to that effect. The patient replied in kind (only she was not so very kind), and then I tried to patch

it up. She left, however, in high dudgeon. Nowadays, when I meet with similar eyes, I do not get angry, for I know that the patient has a very real and a very troublesome disease.

Monocular Diplopia and Polyopia.—By these terms is meant the seeing of double, or of multiple, images *by one eye only*. Binocular diplopia, of course, is caused by troubles in the muscles (extrinsic) which move the balls about and keep them pointed at the object intended to be looked at. Should one eye point properly, and the other not, there would be double vision of course. And this sort of double vision does indeed occur in hysteria, as we shall see later. In the present kind of trouble, however, the patient sees double and even sometimes multiple images with one single eye only. The phenomenon has never been satisfactorily explained, but it seems to be the result of error of refraction *conjoined with* a hysterical retina.

Micromegalopsia.—A patient afflicted with this complication sees objects either too small or too large, or too small and too large by turns. The symptom is closely connected with monocular diplopia and polyopia, and need not further be considered here, though of much theoretical interest.

Photophobia.—Oversensitiveness to light is a common complication of hysteria, one might almost say the commonest. It often disappears promptly after the use of proper correcting glasses is begun, but now and then the glasses must be tinted a light smoke color in order that perfect relief may be secured. The trouble is closely connected with spasm and paralysis of the accommodation.

Spasm and Paralysis of the Accommodation.—The ciliary muscle (the muscle which changes the focus of the eye from far vision to near) may exist in a state of intense and constant spasm as a result of hysteria, and, on the other hand, it may be completely or partly paralyzed. In all these cases much can be done by treatment, which consists in the use of proper refraction glasses, as well as the correction, by operation usually, of any considerable imbalance among the extrinsic muscles.

It is more than worth while to remark that spasm and paresis actually coexist, sometimes, in the same eye. I have had a number of such cases. In all these there was spasm when the eye was fixed for distant and paresis when fixed for near objects. All of these eyes, of course, if possessed of a normal refraction, were practically myopic (short-sighted) for distance, and hypermetropic (long-sighted) for near. The trouble is easily remedied, as a rule, by the use of atropine and refraction lenses, together with, now and then, an advancement or tenotomy to correct some coexistent extrinsic muscular imbalance.

Pareses and Paralyses of the Various Extrinsic Muscles.—These affections are common in hysteria, but, from their complicated nature, cannot be more than mentioned here. Suffice it to say that imperfect balance between the extrinsic muscles of the two eyeballs is oftener a cause than a result of hysteria and that many a case of supposedly incurable hysteric disorder has disappeared like magic as the result of a carefully performed tenotomy or advancement.

Anesthesia of Conjunctiva, Cornea, and Palpebral Skin.—In hysterical people the cornea, the conjunctiva, and the skin of the eyelids are now and then entirely anesthetic, but oftener only partly so. The complication is frequently limited to the left eye. There are many peculiar things about these ocular anesthesias, but, in this place, we can only say that anesthesia of the conjunctiva of the left eye is practically pathognomonic of hysteria. In general cases, in which the presence of hysteria is suspected but not certainly known, the point in question should never be forgotten.

Hysterical Blepharospasm.—Spasm of the orbicularis palpebrarum is a rather rare symptom of hysteria, but it is very, very troublesome. The affection, or symptom, occurs by attacks. Both eyes go suddenly shut, and stay in that condition for hours, resisting every reasonable attempt to open them by force. They open spontaneously, as soon as the attack is over. In almost all

these cases there exist what have been called "pressure-points," spots upon the general integument which when pressed upon will cause the eyes to open. My experience has been that all these individuals with pressure-points are extremely susceptible to hypnotism.

The foregoing are only a few of the eye-symptoms of hysteria; but they constitute the most important ones, and, furthermore, they serve to illustrate the wonderful variety presented by the clinical manifestations of this truly "protean" and very remarkable disease.

Clinical Gleanings From Practice in Mexico

A whole "hat-full" of helpfulness, gathered by a busy hospital interne from his everyday work. A number of therapeutic finds of positive value to the active-principle doctor are given

By VIRGIL M. PINKLEY, M. D., Guanajuato, Mexico

BEING an interne in the missionary hospital in this mining camp of 50,000, where there are thousands too poor to obtain services from other sources, has given the writer a varied medical and surgical experience, the more so as the director here is much occupied with the church of which he is pastor, the nursing school which he conducts in conjunction with the hospital, the paper that we publish and the executive work of the institution, thus leaving the patients very largely in my charge. In this respect, throwing the interne on his own resources and so developing self-reliance, this interneship is far ahead of any I saw in the States. It has also been my good fortune to make visits to the homes of the people and treat them there. With no facilities at hand in these wretched, dark, dirty, unsanitary houses, combined with the fact that these peons shun water as they would the plague and never call a doctor till the patient is really sick, I've been up against it good and hard every day since coming here.

And during all this time there has been no text or journal from which I have gained so much real practical help for myself and patients as from CLINICAL MEDICINE. Hence it is that the stern necessities of my practice have hammered out some good things that I want to share with the "family."

The Abbott maxim of "clean out, clean up and keep clean" is even far more necessary here where the poorer classes abuse themselves frightfully, i. e., eat partially decomposed foods illy prepared, work long hours, drink vile alcoholics, and often do not bathe for a year's time. These people come to us with pains all over the body, are unable to sleep well, with no appetite and literally "knocked out." The effect on them of a tonic shower bath every morning, a thorough stirring up with calomel, ipecac and soda, a saline laxative every day, and good diet for one week's time is little short of marvelous. They seldom stay longer and go out with all their functions renewed, hopeful and able to take up the drudgery of their lives again.

Where you find a case of indigestion with vomiting after every meal and resisting all tonics, digestives, etc., have the patient take a glass of hot milk, lie down and apply hot fomentations over the stomach for half an hour. You will be surprised to see them retain and digest the food and in condition rapidly to increase the variety, with no ill effects.

In cases of nervous dyspepsia, where the patients suffer from an excess of gas and are unable to sleep well, a moist pack applied around the abdomen on retiring and worn all night gives the happiest results, inducing sleep, helps to dispel the gas and tones up the intestinal tract and the abdominal walls.

We encounter a very severe form of diarrhea here, especially after severe debauches, the intestines seeming to lack all tone and all retentive power. I always clean these patients out and put them on large doses of the combined sulphocarbolates of zinc, sodium and calcium, which we use by the 5,000. It is great! But to check up the bowel and conserve the fast-sinking strength of these patients we use in the wards what Dr. Salmans, the director, calls the "three enemas." Here they are: (1) Water at 112°F. (2) Lead acetate, Gm. 2.0; water, Cc. 120. (3) Starch solution, Cc. 20; tincture of opium, Cc. 40. These, injected serially three times a day, have never failed to check the running off at the bowels in two days.

Bell's palsy and all forms of muscular paralysis that are curable are greatly helped by the sinusoidal current, best applied to the affected muscles for ten minutes daily immediately after a shower-bath, as the skin is then moist and offers less resistance to the current.

In children's earache (also of adults) I have been able in nearly every case to relieve pain and induce sleep with this simple remedy: Chloroform, dr. 1; olive oil, drs. 7. Directions: Pour one teaspoonful into the afflicted ear and cover with a thick towel for half an hour. Be sure to caution the patient or mother not to heat the medicine as the chloroform is volatile.

The Treatment of Pneumonia

The hospital records as well as the records of the cases treated at home for pneumonia, which is an all-the-year-round disease here, has been 100 percent recovery and a number of aborted cases for 1908. The treatment in all cases has been an initial calomel-sweep-out followed by a saline laxative; antiphlogistine to the chest; dosimetric trinity No. 1 to control fever; and when gray hepatization sets in, ammonium chloride and hyoscyamine in dosimetric dosage to help liquefy and bring up the debris; followed by triple arsenates during convalescence. I have no hesitancy in saying that the dosimetric trinity compound *does abort* pneumonia.

We have not had to tap any case of pleurisy when the patient came to us in the early stages. Our method is to freely open the bowels and give saline laxatives in broken doses during several days. Also 2 1-2 grains of Dover's powder every hour when the stitch in the side is troublesome.

Picric acid is the king-bee for burns. After a thorough cleansing a 1 : 500 wet dressing stops all pain in a few minutes, secures rapid healing and leaves, usually, no scar. I know this, for a few weeks ago I spilled boiling syrup over my left hand, dressed as above, suffered no pain after three minutes, and now have no scar.

Many of the best-class of paying patients come to us suffering with rheumatism. We have gained quite a reputation by the following treatment: Calomel and podophyllin in alternating doses the first night, saline *every* morning; calcium and lithium carbonates with colchicine in hot water every three hours; an electric-light bath every day, lasting till a good perspiration is raised, followed by the cold shower; baking the affected parts for one hour in a Betz hot-air apparatus; the diet being judiciously restricted. This treatment so improves the patients that in one or two weeks' time they go home and prompt their rheumatic friends to "go and do likewise." Someone may object that this is shotgun treatment. Granting that, it is *all* good and does the work. Also, by these up-to-date methods of treatment we can draw a paying clientele, are self-supporting (which few mission hospitals are) and in consequence can do a great amount of charity work.

A "Find" in Orchitis

Here is an accidental discovery of mine. One day an operative case was brought into the operating room for dressing. I found that the man had a severe attack of orchitis. As he was not able to take the usual sitz-bath I employ in such cases, and there chanced to be among the dressings a box of 25-percent ichthyol and 1-percent phenol vaseline salve, I rubbed that well into the inflamed tissues. Soon I was quite gratified to note that the swelling sub-

sided more rapidly under that than my regular treatment. To make sure that it was not a mere coincidence I reported it to two other American physicians here. The three of us have tried it on a number of patients, with prompt cure in every case. I think this well worth trying out by the "family" and reporting through the columns of CLINICAL MEDICINE.

I have seen a number of cases of malaria, in which quinine in capsule and in acid solution had not the slightest effect, yield to a few hypodermic injections of the hydrochloride. One great drawback to this latter method is the tendency to abscess formation. However when the stomach will not absorb,

The staff of nurses and physicians of the Guanajuato "Casa de Salud"

I prefer to break the fever in this manner, under perfectly aseptic conditions. If inflammation does come at the site of injection, I have found that pus formation can be aborted by a few applications of a 25-percent ichthyol ointment. [The most commonly used salts of quinine for hypodermic injection are the dihydrochloride and the dihydrobromide. The latter, even if a little more costly, should be given a trial.—ED.]

The exanthemata, like the poor, are always with us. I think I am never without a case of measles, scarlet-fever, or smallpox. Permit me to pass on a most valuable addition to the treatment of smallpox, recommended to me by Dr. L. B. Sandall of this city. When the pustules begin to form, have both the day and night nurse put in their extra time in opening the pustules and swabbing out with 1 : 5000 bichloride solution. We all know that it is a surgical axiom to liberate pus whenever found, and, as Dr. Sandall remarks, because there are a thousand or more small abscesses (and with a far greater absorptive surface) is no reason for failing to do what anyone would do with a less quantity of pus in a single abscess. At any rate, this procedure lessens delirium, reduces fever, and patients will even drop off to sleep while the pustules are being treated. As to pitting, the pustules treated seem to heal more rapidly and leave less disfigurement.

I see little of late in THE CLINIC about the hyoscine-morphine-cactin anesthetic. I will say, I have had quite an extensive experience with it, having used it in about 80 operative cases. My observation is that it greatly lessens the stage of excitement, many patients going to sleep without a struggle; that a far less amount of volatile anesthetic is required; and that postanesthetic nausea is rare after hyoscine-morphine anesthesia. My method now is to inject one standard dose an hour before the hour for operation. I am afraid of more than one full dose, and certainly shall not try it again on a patient with a very weak heart, as we have had two troublesome cases, having to use heroic efforts to restore them and postpone the operations. These weak patients seem to me to do better with the general anesthetic alone. But with fairly strong patients, I would not be without it.

There are many other things that come to me, but some time later, if the editor and "family" think it worth while, I hope to go more into detail on some of those diseases of which we see a great deal here but are rare in the United States. You will observe that I am not yet a simon-pure alkaloidist; I take anything that gives the best results, but am a most ardent admirer of the "square deal," exact diagnosis, and the indicated remedies to effect. I do hope to learn to apply the

alkaloids better and be a full-fledged one some day.

Balcony Musings on the Mexican Land

Have just been out on the balcony enjoying the delightful breeze. As I gazed up at "the lovely forgetmenots of the angels" which draw very near here as they are silhouetted against our intensely blue southern sky, it seemed to me that you who are among loved ones in a land where your children have the best of schools and suitable companions for your wives, yet do not have all the blessings. For one thing, many of you cannot stand on your porches at midnight in the middle of the month of January and be comfortable in your shirt-sleeves. It is true that you are not thrown every day all day long in contact with a people who are poor, dirty, ignorant, of little moral perception—belated folk who have lacked advantage and opportunity. And yet few of you, in your lives of keen competition, have the privilege of serving people sadly in need of help who could get no one else to do for them. Hundreds die in this city every year without a dose of medicine or the service of a doctor on account of their extreme poverty —an inestimable economic loss to the country, unless one takes the view that there is then more work and money left for those who live. Every day both here in the hospital and while on my rounds I receive that richest reward that comes to a doctor—the gratitude of voice and eye from those whose sufferings I have been able to alleviate.

So, my brothers, if any of these practical suggestions can serve you in ministering to the sick, I shall feel I have made some return for the many lifts you have given one who is striving to use his profession as the noblest aid a man may have in carrying the love and compassion of the Master to the needy.

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[The doctor has "just started." His practical observations interest us greatly, as we are sure they do all readers of CLINICAL MEDICINE, and we hope that he will continue them. "Repeat," dear Brother Doctor. As we have said so many times, we are exceedingly anxious to get all these helpful items, taken out of the days' work of busy men, that we possibly can. There is not a man who reads this journal who could not, in a few words, give some suggestion that would help a brother in time of difficulty. Need we keep on urging?—ED.]

Automobile Troubles of Doctors

Just a few—gleaned from actual experience, with a few suggestions about practical methods of meeting and conquering them. Written by a man who has played and "knows the game"

By A. D. HARD, M. D., Marshall, Minnesota

A LARGE and constantly increasing number of country physicians are using automobiles in their regular practice, and many more would now be using them were it not for the dread of "troubles on the road."

Because of my extensive experience in this direction, and as a result of the articles which I have written for the various medical journals on the subject of automobiles for doctors, I have been flooded with letters of inquiry to such an extent that I am constrained to ask space in this journal to make a general reply.

Automobile Troubles only Comparable to Matrimony

The bulk of all inquiries refer to tires. Of course the greatest source of a physician's troubles in using an automobile is with pneumatic tires. The delays, dirty work, great expense, and absolute injury to

the moral nature resulting from these exasperating troubles can only be compared to matrimony in its direst form. Simply the fear alone that these Satanic accidents will occur when one is in a hurry to visit some emergency case is sufficient to counteract all the happiness that is usual in six weeks of domestic bliss. Starting out on a hurry call with the idea that a tire may go flat at any moment is a fear of impending

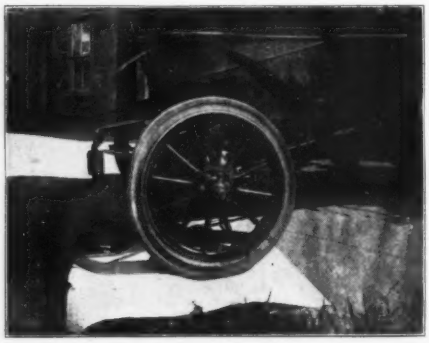


Fig. A—Supplementary Spring

disaster which may well be considered sufficient excuse for clinging to the old buggy and team of bronchos, instead of investing in the "get-there quick" automobile with its treacherous "air-bag" wheels.

But such troubles are *not* absolutely necessary for the physician who uses an automobile. They may be entirely eliminated and replaced by a satisfied feeling of thoughtless content, while you speed along at twenty miles per hour, to complete one call and be ready for the next, if the advice which I give in this article is followed.

The ordinary automobile of today is fitted by the manufacturer with springs which absolutely require the soft yielding of a half-pumped-up pneumatic tire to give proper spring suspension. They well know that without these pneumatic tires their vehicles must have better and more expensive springs to afford that soft-riding quality which insures comfort and freedom from injurious vibration to the mechanism. But we do not need to be bound by the conditions which they endeavor to impose upon us in order to avoid the expense of better springs.

How to Get Relief from Tire-Troubles

To overcome these adverse conditions in a practical manner we may adopt either one of two plans and get absolute freedom from tire troubles, while we retain the easy-riding quality which we wish and the freedom from vibration of the machinery which is necessary. The first method is by attaching to the regular springs of the vehicle supplementary spiral springs, which may be found in any automobile supply store, and then use solid tires (see Fig. A); or we may use cellular nonpneumatic tires, which are made to give softness and resiliency equal to any properly inflated pneumatic tire. (See Fig. B.)

For instance, take a "Ford," a "Maxwell" or any standard make of automobile which is deficient in elastic spring suspension, and add the supplementary spiral springs, or take the cars which have long full

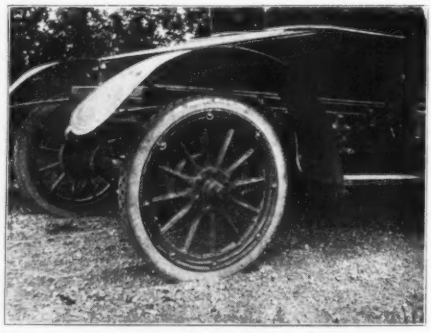


Fig. B—Cellular Nonpneumatic Tire

elliptic springs with thin wide leaves, and solid rubber tires will give perfect results. Or, take the usual car and equip with cellular nonpneumatic tires, and you will secure those qualities which a physician requires in order to make the automobile a practical success in his everyday work.

Now, this is not a simple opinion, it is the deliberate conclusion based upon actual experience of years by a physician in active practice. It is a well-proven fact and admits of no denial by anyone.

I have privately advised many physicians to adopt these ideas, during the past two years, and some of the readers of this article no doubt are among the number who are enthusiastic in admitting that since then they have derived more actual satisfaction in the use of the automobile than they ever before thought was possible.

Troubles Due to Faulty Ignition

The next greatest source of trouble is faulty ignition.

These troubles are usually due to lack of familiarity with the system by which the gasolin vapor is exploded by the electric spark. When the connecting wires are properly covered, solidly connected, and the voltage and amperage of the battery supply is within proper limits; when the vibrating current-closers are adjusted so as to get a fine buzz and a range of contact of proper ength; when the points of the spark-plug are clean and smooth and not too far apart; and when the gasolin vapor and air are combined in the proportions of from 1 to 6 to 1 to 14, the ordinary gasolin motor will surely run. These three factors should be well understood by a physician who uses an automobile, whether he himself runs his machine or hires a chauffeur.

Of course lubrication, loose nuts and fuel supply must be properly cared for. As to breakage and dangers, the driver who avoids bumps, runs slowly on rough roads and narrow grades, turns corners carefully, keeps his car under good control while going down hill, and when he comes to a railroad crossing stops and listens before crossing, will most likely respond to the toast of Rip Van Winkle, "Here's to you and your family, may you live long and prosper."

We must not forget that the automobile is a compound machine of various functions, all combined to secure one result, i. e., quick and comfortable locomotion. It must not be supposed that carelessness, ignorance and pneumatic tires are factors in giving that dependability which a physician requires. Of course there will be many little troubles, but of all troubles the failure of pneumatic tires is the wickedest, most irritating, most expensive, the hardest to bear without getting crazy-mad, and the most destructive to professional dignity and personal honor of anything usually experienced by mortals between the cradle and the grave.

Prompted by a desire to bestow blessings upon my professional brethren who use automobiles, I unqualifiedly advise those who seek to avoid one of the principal impediments to the successful use of the motor-vehicle in country practice to adopt my plan of avoiding tire troubles. Try this plan and report your experience.

Automobile Luck

An antidote for "automobilitis", in which are recounted some experiences with automobiles which are not altogether lovely; incidentally some reasons why the author still sticks to "Major"

By F. A. WALTER, M. D., Stevens Point, Wisconsin
President of the Wisconsin Homeopathic Medical Society

TIME and again have enthusiastic disciples of Isaac Walton regaled us with tales of their skill and success in luring the wily trout, only to fall down when we were along, 'till we have come to look upon ourselves as a fisherman's "hoo-doo." From numerous exasperating experiences with automobiles of high and low degree I have come to feel a good deal the same with regard to the "horseless carriage."

I have often nearly got my courage up to the point of discarding old "Major," only to have it ooze out on meeting some

fortunate or unfortunate (depending on the point of view) owner of an auto headed for the repair shop or, on driving over a hill or round a bend, coming upon a stalled machine from under which protruded the nether extremities of the owner, and mingled with the odor of gasolin the sound of "soft-pedaled" language.

My first automobile trip was one of forty miles and return without mishap. I felt like a trust magnate is supposed to feel and I nearly made up my mind that I must have an automobile for myself. My next auto ride was on a fine day when one was chartered for a ten-mile call; the owner surely had the speed mania. In going around a mud-hole we struck an obstacle with a jolt sufficient to put a locomotive out of commission; shortly after the machine began to act less animated and soon showed signs of distress; one cylinder was out of the "running" and the other "fighting the bit," but by dint of the driver doing the "starter" act a score or more of times we "limped" into town only an hour or so overdue.

Dr. Walter's Office and Home—also the Doctor and "Major"

Nothing daunted, the same route was negotiated in a day or so with the same outfit and all was going merrily when suddenly there was an explosion as if someone had taken a shot at us; we were several miles out with a punctured tire. However, there was no special rush and after getting a few pointers on repairing, an excursion was made to a nearby berry patch while the job was finished. In about an hour the horn "called" and we were soon just touching a few of the high places; shortly one was touched a bit to hard, up went the tire again and the trip was finished behind a good old German farmer's horse, pressed into service from a nearby corn field.

Having been assured everything was in good order the same trip was again essayed in the same machine and the sensations experienced were certainly exhilerating—until half a mile from the goal, "bang" went another tire and the rest of the first half was made by "hand." After ministering to the patient a return to the seat of trouble found the driver wrestling with divers tools and an unprintable vocabulary, which last it certainly was a great temptation to second heartily. Only after a sudden shower had drenched us was the journey resumed. A belated return to the fireside caused the old horse to be regarded with still higher esteem.

Thus endeth the first season.

The next spring, while attending a society meeting in another city, an auto was engaged from a livery to "sight-see" in, and soon, with the good wife and a party of professional brethren, we were gliding down the avenue with the air of those who could buy the town if they cared to, which "air" was soon lost as the speed limit seemed to be off duty. The fender of a trolley was just dodged, to find the hub of a coal wagon had only been missed by a "whisker's" breadth—and the breath was nearly lost as we careened toward the curb.

Mr. Chauffeur was informed we were out for pleasure and not to have our hair bleached, and then, as the speedometer gesticulated less wildly, composure was regained and we settled down to enjoy the outing. But we had reckoned without our host, since something soon went wrong which took some time to adjust, and again, when about half way home, the whole works seemed to be slipping a cog at one and the same time and we stood

around jollying each other and goading the chauffeur to madness by way of special diversion. Just as the shades of night were falling we moved off, hoping our troubles were over but about half way down an incline the telephone poles became a mere streak and it was realized we were "running away," but there was nothing to do but sit still and trust to the "gods of luck" to get us safely across to the up-grade, which they did. As soon as the machine came to a stand we were out and the chauffeur was informed that if he had a machine that could be depended on and would take us out in the morning he would be remunerated, but not for that evening's experience, such as it happened to be.

Next morning he was on hand with an entirely new brand of car and another start was made by all except one of the party, who had concluded the street-cars were good enough for him. His judgment proved correct, as he beat us to our destination by about twenty blocks. We had not gone far when the carburet failed to "buret," or something of that nature, and the afore-mentioned wife was out talking German to all the good *haus/raus* in the block in an endeavor to borrow a wrench the chauffeur was shy of. After about twenty minutes of "smiling and looking pleasant" the trip was finished without further mishap, but the journey home was made by train instead of across country with an auto party, as had been partially planned before we had this experience.

A little later, one fine evening, the auto liveryman was engaged to take the family for an airing. Just before supper a hurried call came, which was made on the double quick and the supper bolted, so as not to delay the party; but to no avail, as we had only gone a few blocks when a tire-valve blew out and we returned meekly to our home *via* the sidewalk.

One fine morning, not long after, a consultation call came from about thirty miles south. Here was a fine opportunity to take an outing and earn a few dollars at the same time, so the children were kept from school and the "swellest-ever" automobile was engaged. About ten miles out a barn-moving outfit blocked the road and a strange and roundabout way had to be taken. After a bit the "way" was lost, and time accordingly; then the car stalled, taking a sandy hill, and after six hours of this exasperating sort of experience we wobbled into a town six miles from where the call was to be made.

With a sandwich in each hand "the Mrs." and children made a run to catch the homebound train and the patient was visited by team while the auto was tinkered up. The start for home was made by moonlight and all went well for a time, but a "hot box" gave the driver "cold feet" and home was reached about one a. m. by means of animate "horse power."

To offset this, one day an emergency call came from fourteen miles out and a "roadster" reeled off the first six miles of macadam in ten minutes flat and the rest of the way, on a winding river road, in twenty minutes, and I felt more kindly toward the "species;" but a few weeks later I took a party of friends out and ten miles from home the rear axle broke; but fortunately we were near a phone station and while a bunch of urchins were lined up and fed sweetmeats and "taffy" another machine came to our rescue and we had solved the auto problem, viz., to have one to go in and another to come in.

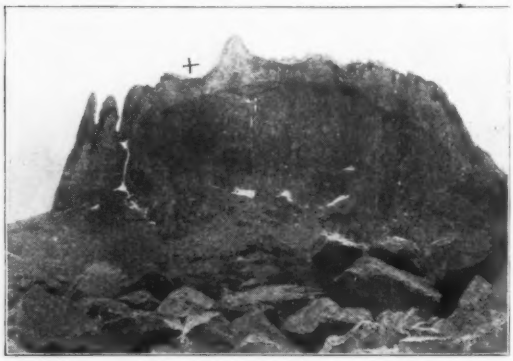
However, we have to confess to many a pleasant and profitable experience as well as the above and feel that the auto is the thing, and if one has a high-grade car, and cares for and runs it about as he ought to, the pleasure and profit will far out-balance the inconveniences.

From the Bolivian Mountain Tops

From far-away South America a member of the "family" writes of the strange customs and medical superstitions of the descendents of the Incas—still fire worshipers

By CHARLES W. FOSTER, M. D., La Paz, Bolivia

I AM sending you two photographs, one illustrating one of the mountains that form the main chain of the Andes and known as Tres Comas, or Three Peaks. This mountain rises to an elvation above the sea level of about 18,000 feet and it is possible to ride a mule to within the last 250



An Andean Mountain Peak—Altar at place marked with cross

or 300 feet. The valley below extends for many miles at an elevation of about 15,000 feet. Although for a great distance in every direction the view is unobstructed, no human habitation is visible.

Offerings to the Sun

The altar shown in the other picture is frequently visited by the Indians, whose fresh tracks have been seen on different occasions by myself and companions. The cross (x) marks the site of the altar, where the Indians leave little woolen slings, bags of coca leaves, bottles of alcohol, little earthen jars, eggs and fetuses of llamas, presumably as offerings to the sun. A soil has been formed around the altar by the decaying of these offerings. The slings left there are smaller than those ordinarily used for herding the sheep, which is done by throwing stones at them. The bags containing coca leaves are neatly woven from wool and are similar to those they carry when traveling, but smaller. If is their custom when traveling or working to chew coca, which has the effect of suspending the sensations of hunger and fatigue.

Upon the mountain a few guanacos (pronounced wanacoes) may be seen at times. This is an animal very similar in size and appearance to the llama, the Indian's chief beast of burden.

In the valley, and especially on the mountain-side, are many troops of vicunas, a smaller animal of the same family as the guanaco,

The Altar of the Sun Worshipers

alpaca, and llama. The vicuna has a most fine silk-like wool and its flesh is excellent for food, as is also that of the guanaco.

Strange Etiology for Axillary Abscess

I recently heard of a curious etiology ascribed to an axillary abscess. A servant

in LaPaz, a chola or mestiza, and one rather above the average in intelligence at that, in describing this affliction of her grandmother, said it was caused because a mouse hated her.

A friend of mine tells of seeing some native servants kill a pig for food by holding its head under water in an irrigating ditch until it was drowned. Sometime I will tell you more about Bolivian life.

Common Causes of Indigestion

Practical observations on digestion, diet, the common stomach ailments and rational methods of treating them, with a running fire of comment based upon clinical experience

By F. B. GOTTSCHALK, M. D., Chicago, Illinois

THE human stomach has been called the most amiable, omniverous and adaptive of organs; given time and absolute necessity and it will adapt itself to anything. This, however, is a very mistaken notion, for swift retribution overtakes the self-indulgent: nature revenges itself on the person who overworks his pneumogastric nerve.

A person's health may be measured by the condition of his stomach. With the stomach normal, as a rule, the whole body is normal, for whatever the complaint, the stomach is likely to show it in some way.

The working powers of the secretions of the intestinal tract differ just as do the capacity of the glands that produce them. Marked digestive powers of the stomach and the intestines are frequently inherited through several generations, while others complain of weak digestive organs. The utilization of various food-products varies in different individuals. Much depends upon habit.

We Are Thoughtless in Eating

All the digestive juices are more or less under the control of the animal himself. Our great fault is thoughtlessness. It is a law of physiology that man can digest that for which he has a craving, but he usually eats without this craving, for the cook or the boarding-house keeper rarely asks him what he wants. Nature never intended that we should eat a large variety at one meal; no other animal does. The man of simple habits lasts longest.

It has been demonstrated on volunteer young men of Yale and West Point that thorough mastication, taking forty minutes to eat a meal instead of twenty, without a change in diet, gradually increased in mental as well as in physical endurance, though no special physical exercises were taken and the amount of food eaten was less. To taste, or to test, our food is a chemical matter and requires time. Not until the saliva gets thoroughly mixed with your food do you taste it. The complete mastication of all food exercises this sense of taste, just as the athlete exercises the muscles of his body or the intellectual giant exercises his brain.

We can cultivate the nerves of taste by concentration the same as we do any other set of nerves. Lack of appetite means lack of gastric juice, which is equivalent to faulty gastric digestion while a vigorous appetite is a great stimulus in accelerating the flow of digestive juices, thus paving the way for thorough and easy digestion. Thorough mastication of the food prolongs the mechanical stimulation of the salivary glands and thus causes an increased flow of the secretions in the stomach and the intestines.

The reason many epicures or gluttons thrive is because they enjoy every mouthful they eat, and have their minds on it while they are doing it. They are able to digest and dispose of quantities of food which would simply stagger the ordinary mortal,

and keep it up for a long time, as long as they do not use their energy for mental or physical work. The epicure, as a rule, works for his stomach alone. Everything else is secondary, having his mind on his food, a sufficient amount of "psychic juice" is secreted to digest his food with ease. To the broker or the business man his meals are secondary—he isn't thinking of his stomach. Both the nervous and the circulatory energy should be devoted to the service of digestion during the meal. A small meal, slowly and deliberately eaten, is of more value than a large one. X-ray experiments on the digestion of a cat into whose stomach a certain amount of bismuth subnitrate had been introduced before feeding showed that the digestion was greatly delayed while the animal was kept in a nervous and excited state. Many a child has laid the corner-stone to physically poor health because he has attempted to study and learn immediately after eating.

More Blood Needed by the Stomach During Digestion

The stomach needs nine times as much blood during the process of digestion as it does when at rest. This fact should impress upon us the necessity of a rest from other occupation immediately after eating. The stomach deprived of its normal blood and energy supply takes much longer to digest the food than is requisite under appropriate conditions. The food thus lying in the stomach is likely to follow the law of gravity, and a sagging stomach is the consequence. The child at high school frequently is compelled to put in almost every spare hour out of school to study up lessons assigned by the various teachers, who probably know all about geography, political economy, algebra and physics, but who do not for one minute realize that the eye and the brain—which are more or less voluntary organs and under our control—are stealing the food and blood supply from a most important organ.

It is a commonly noted fact that the bright child of the upper grades at the grammar and high schools is a frequent failure in after-life, rarely rising above the mediocre; as he has not sufficient energy, push, perseverance, which go with strong physique, while the low-grade pupil, at the end of his class, frequently turns up at the head of large business institutions; because he has a sound body and good digestion, he is able to stand wear and tear.

The business man who eats a big dinner and then tries to do business with his blood and nerve-energy is in the same position as the girl who studies or practises the piano after eating. He is looking for trouble. Many a man has met his death at an after-dinner speech because the blood that should have been present in his stomach was in his brain. Such cases usually are diagnosed as due to heart trouble.

Any kind of effort which takes the blood away from the alimentary canal after eating is injurious. Reading the paper while at lunch or during meal time occupies the mind and does not permit the tasting, or testing, of the food, with the consequent absence of "psychic juices" so necessary to the secretion of the normal digestive processes. Every man should make a special effort to eat his dinner or principal meal in a leisurely, uninterrupted, cheerful manner. Surroundings also count for very much; sitting down to a tastefully and beautifully arranged dinner table you don't taste the decorations and the surroundings but they play a great part in its palatableness. A great deal depends upon the color and appearance of our foods and the surroundings. This is recognized by many restaurant keepers who furnish music with their meals, as the emotions are soothed and a general relaxed feeling is produced. So pieces of music written in a certain key are more apt to bring about certain conditions than if written in another key.

The Value of Careful Preparation and Flavoring

This calls our attention to the value of food agreeably flavored and prepared in such a way as to attract the attention and upon which one is willing to linger. In fact, a great deal can be done in this way

for persons with feeble stomachs. None of the other involuntary organs are as completely under the power of the will as is the digestive tract. Think of a tempting morsel, and the mouth waters. Think of having swallowed a fly, and nature makes an immediate effort to empty the stomach, and so on.

A peaceful mind, pleasurable anticipation, freedom from care and anxiety, cheerful companionship, all form desirable table-accessories. To eat in company is far better than eating alone. The individual compelled by force of circumstances to take his meals alone is far more liable to suffer from indigestion than he who eats his meals in company. We rarely see members of large families who eat their meals at the common table aware of the fact that they have a stomach. The subject of disussion at a table should never be anything that is not agreeable to all concerned.

Many people make martyrs of themselves and eliminate all joy from eating. The attitude we bear toward our food is a very important element in its digestion, and is of as much importance as mastication. You can't knock out trouble with your digestive apparatus by worrying about your digestion. The man who is continually anxious about his food is a dyspeptic and is going to remain one. Nothing survives being thought about.

The really healthy stomach is able to dispose not only of the digestible but the difficult of digestion. Stomachs can be pampered just as easily by relieving them from the necessity of taking food as by overloading them. The stomach must not be allowed to shirk its responsibility or be humored too much.

The Trouble with the Health Foods

The intestinal tract needs responsibility to keep it in order. Idleness leads to incompetency. The system forgets how to take care of a good square meal. The stomach-walls must have exercise the same as the muscles of the arm. The trouble with the ordinary health foods is that they lack grip and bulk and do not irritate and stimulate the intestinal walls. The author has in mind a banker who during the recent panic was compelled to devote from sixteen to eighteen hours a day to the interests of his business. During this entire time he lived largely on predigested and concentrated food to carry him through this time of stress. It took this man's digestive organs months before they were again able to assume their normal functions.

Always eating easily digested substances will eventually weaken the digestive system. The ordinary meal should contain a reasonable amount of indigestible residue, as this is absolutely necessary to stimulate the lower bowels to their proper action. We need "hay" just as horses do. On the other hand, however, many people overeat and fill the stomach and digestive organs to excess, causing these organs to work unusually hard for a long period of time and causing the walls of the stomach and intestines to be much distended. If this occurs very often it may cause functional disorder, especially if too short a time is granted after too hard work. In fact, there is hardly a disease which is not aggravated or induced by over consumption of food imperfectly digested. Requiring a large amount of oxygen for its combustion and a large amount of water to separate the excrementitious matter, excessive demands are made on the heart, lungs, the liver, the kidneys and the muscles of the intestines, as well as the involuntary muscles of the blood-vessels.

When we realize the truth of this, it isn't difficult to see that long-continued work will bring about a diseased condition. If a hog is penned up and stuffed till he can hardly walk, he acquires greater and greater craving for food and can consume greater and greater quantities of swill. His fellow who runs loose and roots for a living may be a hundred percent more healthy and yet would be gorged to the point of choking if he attempetd to eat half as much as the weak and sickly one consumes. The popular belief that the more one eats the stronger and healthier he grows is the silliest of many silly beliefs with regard to the human health and strength. We all are too much in-

clined to eat more than is good for us. This stuffing was a normal habit of our ancestors. They had to take their food when they could get it and trust to luck for the next meal, and it was easy for them to steal off to a quiet retreat and sleep undisturbed, and having nothing else to do were able to cope with the situation.

Imperfect mastication of food causes a deficient flow of saliva, which not only moistens the food and thus aids comminution by the teeth, but determines differential activity of various glands supplying it. It also stimulates the flow of gastric juice. The secretion of saliva varies with the food taken into the mouth. The introduction of stones in the mouth is not attended by any secretion at all, while sand causes a copious flow of a thin watery fluid (containing no ptyalin) which serves the purpose of washing the sand from the surface of the mouth and enables the rejection of this substance.

How Not to Eat Starchy Food

Saliva contains a ferment, ptyalin, which turns cooked starch into maltose. If the saliva has not been thoroughly mixed with the food, digestion does not take place in the stomach. Starchy foods eaten with a spoon are rarely insalivated. Thus for instance cooked rice, tapioca pudding, mashed potatoes, or any starch products in a softened pasty, semifluid condition, such as the various mushes, cannot be mixed with saliva, consequently do not pass through the first stage of digestion.

The Chinese and the Japanese eat cooked rice plentifully, but they do so with chopsticks, eating a few kernels at a time and masticating their food five to ten times as fast as the Americans. Furthermore, after centuries of adaptation to this food their saliva contains more ptyalin than that of people living on a varied diet. The Irish, who eat large quantities of potato, can assimilate larger quantities of this food than others whose secretory apparatus is not accustomed to this diet. The Esquimau, for instance, eats very little starch, and so has a deficiency of ptyalin in his saliva, in fact, has a partial atrophy of his salivary glands.

The alkalinity of all the digestive functions, with one exception, is a very important one and must constantly be borne in mind; especially is this true in the digestion of starchy foods. Ptyalin, the active ferment of saliva, is inactive in an acid medium. Hence acid foods, such as pickles, sour wines, sour fruits (grapefruits, lemons, sour oranges) and many tasty acid mixtures, when ingested in conjunction with starchy food, greatly delay its digestion.

Mistakes About Fruit Eating

The author recently had a very interesting patient who in the course of several months had lost thirty-five pounds. This patient was a fiend for acid fruits, lemonade, ice-cream, pastry, and so forth. As this patient was able to expel the entire contents of his stomach by simply tickling his palate, I made use of this fact in demonstrating to him the why and wherefore of certain food combinations. I had him eat a breakfast of shredded wheat biscuit and a glass of milk at 7 a. m. On calling at my office at 9 a. m., by tickling his palate he expelled the entire contents of his stomach, which were fairly well digested. The following morning I had him take a grapefruit, followed by a breakfast similar to the one of the previous day. In this instance there was a marked difference in the contents of his stomach. His breakfast had not yet been thoroughly liquefied, while the milk he had taken contained a lot of solid, tough curds, entirely different from the small sweet curds produced by rennin, nature's milk-curdling ferment.

Grapefruit and other acid fruit eaten *before* meals retards the digestion of starchy food more than if eaten *after* meals. This is especially true if the starchy food consisted of mushes or other pasty breakfast foods, which are not thoroughly insalivated because of the inability thoroughly to incorporate saliva with this form of food, nature furnishing a large quantity of saliva for dry and only very little for moist food.

To demonstrate this latter point I had this patient eat some zwieback or dry toast, followed by a grapefruit. As these toasted

foods have to be chewed thoroughly to be swallowed they were well mixed with saliva, and we know that usually they form one solid round mass in the stomach. The acid juices of the stomach being able to affect only the outer layer, the saliva, or ptyalin ferment, can go on undisturbed in the interior of the starchy mass. On expelling this breakfast two hours after it was eaten, the starch was found to be well digested.

There was a reversal of the order, on the following morning, when the patient ate a breakfast of cornmeal mush and milk, *preceded* by a grapefruit; digestion had not yet begun, because each mouthful of starchy food, as eaten, was promptly coated or mixed with the acids already present in the stomach.

Retarding Action of Acids on Digestion

Another patient was an interesting demonstration of the retarding action of acids on digestion. I was once hurriedly called to see a patient who, to spite her husband, attempted to commit suicide by taking a large dose of arsenic and one dram of morphine, which she had held in readiness for just this occasion, for some time. When arriving on the scene I found that the patient before taking the poison had had her dinner, which had consisted of mashed potatoes, some macaroni and roast beef followed with ice-cream. While attempting to give the patient an emetic hypodermatically she broke my syringe. I then attempted to wash out the patient's stomach with a stomach-tube, to which she also strenuously objected, and in the effort to defeat our purpose she succeeded in biting my stomach-tube in two, making it useless for further washing-out purposes.

After a struggle we succeeded in putting it in her mouth and with the remaining part of the stomach-tube, which by no means reached her stomach, but was long enough to reach the esophagus, we succedeed in administering the juice of a half dozen lemons, mixed with ice water, thus accomplishing a double purpose. In the first place, the acid delayed the digestion and the consequent absorption of the mashed potatoes, while the ice water had the effect of chilling her stomach and thus preventing absorption. After an hour and a half we succeeded in getting a new stomach-tube which when introduced enabled us to clean out that stomach. The drugs thus far had had no untoward effect whatever upon the patient. In fact, the potatoes came up practically untouched, just as they had been swallowed. Of course the mental agitation might have had some influence in delaying digestion, but we must remember that she had eaten her meals in a joyful mood and cause for trouble only came after dinner.

(*To be continued*)

Once in a while within our own
We clasp the hand of a steadfast friend,
Once in a while we hear a tone
Of love with the heart's own voice to blend;
And the dearest of all our dreams come true
And on life's way is a golden mile,
Each thirsting flower is kissed with dew
Once in a while.

—Nixon Waterman.

A Doctor's Vacation Trip

A Colorado doctor and his family cross not the Rubicon but the Rio Grande, and make a trip into the mountains and canons of the Southwest to the ancient home of the Aztecs

By J. TRACY MELVIN, M. D., Del Norte, Colorado

VACATION! A joyous word to those who live as they pass as well as those who hope for a better day. Three years ago, then a country doctor in southern Colorado, I picked up my camping outfit, my better half and two babies, packed them into a covered spring-wagon, hitched our trusty bronchos, Dick and Puss, whistled to the dog and headed for the high mountains of the "Great Divide."

Our Traveling and Camp Equipment

Our camp outfit consisted of the "grub box" of light construction, built to fit exactly the back of the wagon, four feet high and twelve inches deep, with shelves and detachable cover to use as a table if needed. Four very heavy blankets and a fur robe, small shelter-tent, two camp-chairs, rifle and gun, field-glasses, clothes basket for the babies' nest, some few repairs, and a sack of oats, with a suit-case for clothes completed the equipment.

We crossed the Rio Grande and began our climb. The first camp was 9000 feet high and it was in early September, so next morning we found that the babies' "drink" was ice and an early fire became desirable. The babies slept in the wagon from which we staked our sloping tent. The first night's "sleep" upon the ground in a wild country, filled with anxiety about the hobbled horses, should they break their necks or unceremoniously leave you, is always a misnomer. Now, however, we had the best of chances to get our outfit shipshape, easy to pack and to unpack, yet everything needed for the children convenient.

In the morning, as the ponies had been out camping before, as well as their driver, they were promptly on hand, asking for oats, as the sun rose, so we knew that they would not be tempted to desert us, as unsophisticated horses do so often.

Breakfast over, we resumed the climb alongside of the roaring mountain stream until it dwindled to a thread and then we were among the snow patches which wait from generation to generation for a sun warm enough to release them from the frost-king. Then over the divide and down the western slope, over a mere mountain trail, among old-time mines and prospect holes where a thousand men had dreamed of wealth untold. Three camps more and we were at Pagosa Springs, that great hot springs whose healing waters were known even to the wild Apaches of the desert. Here we rested a day, seeing the changes which twenty years had brought since our last visit.

We Reach Durango—the "Smelter City"

Again we were on the road, practice having made it easy to make and break camp within the alloted hour and a half and that without always stopping to wonder what we had left behind this time. Over good roads in another two days we rolled down into Durango, the "Smelter City"—the "Second Pittsburg." Truly the twenty-five years since we assisted at its birth had wrought a marvelous change even if not all that we had dreamed of in the early days when we let our imagination run riot in the newspaper write-ups which we sent forth. But some day it will all come true, and more, for it is the center of a kingdom of its own.

We now turned south to follow a remembered trail into the fruit country of New Mexico. While the trail led as of yore down the Las Animas river, that river and the canyon walls which held aloft a chapter in the great book of creation so that all who

run can read the leaves (strata after strata of the carboniferous age standing up at an angle of 45 degrees for more than twenty miles), were the only familiar things. The Ute Indians, whose reservation this used to be, were here no more but farms and ranches on every side, with now and then a country schoolhouse and orchard.

An Aztec Cliff House

At Cedar Ridge a good doctor who was passing the blacksmith's shop, where a broken tire was being repaired, invited us over to eat watermelons and pears beneath the shade of his porch. Soon we were talking alkaloidal granules like old chums while the ladies were matching baby lore. Many a day since have I smacked my lips in memory of those juicy melons.

Soon we passed Aztec, with its old Pueblo ruins which we again explored, twenty years ago in the midst of a desert with no human sign in sight—today in the midst of a waving wheat field with a thousand homes in view.

A Visit from Copper-Colored Babies

The day following we found Farmington, situated where the Las Animas flows into the San Juan, upon whose banks we camped. As we built our fire and turned the horses loose we noticed nothing unusual except there seemed to be many loose horses about, but no sooner had the babies began to toddle about than company appeared, copper-colored boys and girls who seemed to come from behind every tree and bush. True to their instinct, in silence and hiding they had watched us make camp until the presence of the babies pronounced us harmless. Soon the word spread and their mothers dropped in to be sociable, a song without words. However, we learned that the great Farmington fair was in progress and that two thousand of these Navajo Indians had come up to enjoy the sports, and most of them were camped right here. They were not unpleasant neighbors although I had hardly expected again to camp with the former lords of this region. One thing they would not allow for love nor money was to let me point my camera their way. (Did I forget to mention that item of our equipment?)

Farmington fair was a good old country fair, with Indian horse racing thrown in. It was real horse racing too, such as sends the blood tingling to every finger. Here, too, we added to our stock of Navajo blankets of the real kind; those that you can use as a tent, a water-pail, a raft in crossing a river or a floor mat and that in the fifth year are better than when new. Fruits, melons

Starting Out on the Vacation Trip

and flowers were all free upon these and other days, just to show us how fine the country is as well as the people.

Among the Indian Ruins

On again southward, to Casa Bonita, where old Indian ruins tell of prehistoric cities scattered over these desolate mesas.

We were anxious to go through the wonderful ruins of the cliff-dwellers in Canon de Chelly, but time forbade, so we called at Zuni, one of the seven cities of Cebolla when America was discovered and still inhabited by its own people. A book of description could and has been written of this and its sister cities. Suffice to say, civilization has cast its shadow here within the past few years and the old is passing away—repeating the tragedy of the ages.

Now, for the long drive home, out from the hot plains up over the snowy mountains, getting caught in snow storms, and once on the top of Cumbres pass, after a day in the storm, we sought refuge in a miner's cabin for the first time since starting; and it was good to listen to the storm howling outside those thick walls. The next day was clear and bright as we rattled down into the San Luis valley again and headed across its fertile fields for home.

The odometer registered 856 miles, the horses were leg-weary from averaging over fifty miles a day the last four days, but otherwise in good condition, and two people said, "Next time we have a vacation we shall take time enough and go clear through the land of Tusyan to the Grand Canon of the Colorado"—and we did!

Selection and Care of the Horse

Some help for the doctor in the selection of his horse, with suggestions about feeding, harnesses, shoeing, driving, stabling, telling its age and other matters of interest

By HERBERT F. PALMER, B. S., D. V. S.

"TO go or not to go, that is the question." Whether 'tis better to stand in the mud and crank my machine or depend on the cranky horse.

This is the question that must be solved by the young practician. Going, as he has to, into places not accessible to street- or steam-cars, the question of conveyance must be settled sooner or later. While the automobile has a certain place, there is still another place that so far has been filled by the noble horse, and by him only.

Upon the judicious selection of the driving horse depends much of the comfort the practician may derive from his daily routine life. While I would not ignore the care that must be given to this animal, I would place more than the usual stress upon its proper selection. With judicious selection and proper care, one horse may be made to do one- or even two-score years' service for the busy doctor.

We now consider the kind of horse to select. A piece of machinery is chosen to do the one work intended; and so with that horse, which is selected to travel over all kinds of roads, in all kinds of weather, and at all times of the day and night, travel is his business. Unfortunately we can not point to any distinct class or breed of horses from which to fill this want, as America has no such type. Should we demand a draft-horse, we could of course point out some definite breed or strain.

American breeders have at last recognized this unfilled demand for a true type of carriage-horse, and the Government is making efforts to overcome this defect, the endeavor being to breed to a distinct type and stamp that as the American carriage-horse. In the mountain districts of Colorado is kept a herd of horses selected for that particular purpose and there the Colorado Agricultural College is trying to develop under the direction of the Government such a typical American carriage-horse.

As it is now, one is compelled to select an individual of any strain and find among

the various different breeds one as near to one's ideal as possible. In other words, you will have to select a good individual from some of the cross-bred animals.

The Type to Be Kept in Mind

The following distinctive type should be in mind when selecting the driving horse, trying to get as near to this type as you can find and your purse will allow:

Not under 15 hands (60 inches) high; smooth, compact and symmetrical conformation; neck of good length, inclined naturally to arch; sloping shoulders; well-set legs of medium length; sloping pasterns and good feet; short, strong back; well-sprung ribs; well ribbed up to coupling; smooth loins; full flanks; straight croup; well-set tail; full, round buttocks.

The foregoing type will present a rather blocky build and not the socalled rangy horse. The rangy horse is likely to be of thoroughbred stock and may do good service under the saddle on the track, but his true place is not in the doctor's outfit. True it is, the rangy horse can give you more speed for a few miles, but the solid-block is your all-day horse—the horse that will cover more miles each day and is ready to go any time you ask him to.

The Horse's Disposition Is Important

The disposition of the horse is an essential feature. Not only should it be pleasant to handle when in the harness but about the stable as well. Note the intelligence displayed and have care to pick an animal with brains and sense enough to use them properly. This can be discovered by carefully watching the horse while being handled.

Never buy a horse after his exhibition in the harness alone. See the horse at rest, watch him in the stall; observe his movements and actions as he is being harnessed and hitched to the buggy. Defects, if he has any, will be seen in some of his actions, during some of his movements, and the combination of these movements will give you the index to his disposition.

The majority of our driving horses have to be shod. Do not shoe unless necessary. Over soft country roads a horse may go weeks at a time without shoes. The shoe for the driver is there mainly for protection to the foot, hence one should cast aside the protection when unnecessary. Light shoes are preferred, as they will last longer than the heavy and better remain in place on the foot. The three small calks frequently used do not give the foot a firm position on the ground but will often cause a "knuckling over" as the foot is taken from the ground. Hence the precaution to make the calks prominent if used at all. If the animal is firm-footed, no necessity will arise for the use of any calks except the roads are icy or slick. Plain shoes without calks, or as usually called, plates, are preferred. When shoeing, have the foot properly balanced. A line drawn longitudinally through the center of the foot, cutting the frog into equal halves, gives us the center of gravity. The nearer the branch of a shoe is to this line, the more weight it receives and the more the pressure is thus evenly distributed over the entire hoof.

What Is the Best Stable Floor?

The character of the stable-floor is often a subject of inquiry. Is it better for my horse to stand on a dirt, wood, cement or asphalt floor? Given a thick iron shoe, it can make no difference to the foot itself as to what the shoe is resting upon. So use that material for a floor that will enable you to keep the stall and horse clean with the least work, and for this we believe cement offers us the best material. There is but little danger of the horse slipping when the cement floor is properly corrugated, while the hose readily makes it clean. Proper slant for good drainage and direct connection with sewer to take off the excess fluids are some of the essentials.

After all, the horse is simply a machine converting so much hay and grain into energy, to be used in hauling you over the country. The efficiency of a machine depends on the proper use of material consumed. So with a horse. Its utility will in a measure depend on its care and the proper assimilation of the foods given.

More horses are injured by overfeeding than by underfeeding. The driving horse should never have all the hay it can consume, as bulky food interferes with travel. Increase, if necessary, the grain ration but cut down on the usual allowance of hay. Feed quite liberally of hay at night, a moderate amount in the morning, but none at noon. The kind of grain will depend on location, but for an all-around grain-food oats can be depended upon. But whatever your grain ration may be, add to it bran—the "clean-out" food of the horse. About one-third of the grain ration should include bran, and its value is just the same, given dry as wet. The idea of a hot bran mash once a week being sufficient is a myth. Of course it will help some, but better give a liberal portion dry with each feed.

Water should be given *previous* to each meal—not all the horse can drink, but a moderate amount. The small capacity of the stomach of the horse renders it necessary for the water to be given previous to the feed so as not to wash away the food before digestion has sufficiently progressed.

The question of blanketing a horse when in the stable will have to be met as circumstances arise. In general terms, do not encumber the horse with anything outside of nature's provision that you can as well get along without. This applies to shoes, blankets and harness as well. Do not apply a lot of extras on the harness for the horse to carry about when a lighter weight will suffice.

Care of the Horse While Driving

Driving does not hurt a horse and he will stand plenty of it if it is at all regular. Push vigorously forward if you care to when on the road, but, and during inclement weather especially, spend a short time in making the horse comfortable at the end of journey. Hitch to a place where the horse will be shielded from the wind and cover with a good blanket.

Do not feed or water when in an overheated condition. True, some of our western horses apparently are never injured by any amount of water given at any time, but do not take the chance.

Many vices of the stable as well as under harness are seen in our horses, and a great majority of these are the result of injudicious handling by one styling himself a trainer. A horse by nature is not vicious or balky. It is the balky man who has tried to train that horse, and the horse has had the more sense of the two.

If you desire a horse for full and hard work do not purchase too young a horse. It is better to select one eight or nine years old, if in perfect condition, than a five-year-old and then take the chance of his going wrong during the next four years, the really formative period of his life. The horse found sound and of good disposition at nine years will usually so remain, and with any just care will do more than ten years of hard service after that age.

How to Tell the Horse's Age

The age of the horse is told by the changes in the lower incisor-teeth. These six incisor-teeth become permanent at five years of age. At six years the cup disappears from the two central incisors; at seven the next two lose their cups, and at eight the outside, or lateral, incisors lose their cups. After eight years of age it is a guess and the guess should depend on the slant of the incisors. The incisors of the five-year-old meet square up. With each advancing year they push outward and tend to meet only at the inner part of the tooth, hence the elongation of the wearing surface.

The sex of the horse to choose will depend upon circumstances, but on general principles the female is preferred. It is true, you will usually find the gelding a little hardier, but the other good qualities of the mare are so far ahead of the gelding that mares are usually preferred.

We have thus dealt only with the horse in its healthy stage. Many things will from time to time arise that may give you annoyance. Remember, the horse is but like a large baby that will not audibly tell you the location of pain, and so you must observe. When the trouble is located, treat as you would were it a human be ng, using sixteen times the usual dose for an adult man.

Progress of Stomatology in Hungary

A record of the stomatologic advance-movement in this most progressive country, with special reference to the indefatigable labors of one able man—Prof. Joseph Arkovy

By EUGENE S. TALBOT, M. D., D. D. S., LL. D., Chicago, Illinois
Secretary of the Section of Stomatology, American Medical Association

STOMATOLOGY in Europe is making rapid progress. Hungary may be given credit for taking the lead. This has been brought about by that indefatigable scientific worker, Prof. Joseph Arkövy, who by his persistent effort has received the great honor by the Government of "extraordinary professor." The Minister of Public Instruction placed at the disposal of Prof. Arkövy a sufficient sum of money to build, equip and maintain a school of stomatology. This building is now complete for the education of graduates of medicine. A condensed history of Prof. Arkövy's effort will interest those who are believers that our specialty should be practised by medically educated men.

Since 1844 stomatology as a special science has been a feature of the curriculum of the faculty of medicine, for it was at that time Dr. Dominique Nedelko was nominated professor of dentistry. His course, however, only included anatomy and extraction of the teeth, and since his death, which occurred in 1882, the chair has remained vacant.

PROF. JOSEPH ARKOVY

Arkovy's Public Dental Institute

In reality, the birth of the school was the public dental institute founded by Prof. Arkövy in 1880, rue Magyar-utcza, and where he established the education and practice of stomatology on a modern, scientific, medical basis. The good work of the institute was so much appreciated that the medical faculty in 1890 created an odontologic clinic and gave the direction of it to Prof. Arkövy.

The students first passed three semesters in the Hospital St. Roch, where they received a provisionary title. On the second floor of the Administration building of the university there was a classroom, an operating room, extraction room, laboratory and waiting room. The furniture consisted of twelve chairs, with the usual accessories. A collection of models taken from Prof. Arkövy's odontographic collection and given by him

to the school, the macroscopic and microscopic preparations, library, etc., were also on this floor. The staff was composed of a director, two assistants, a paid and unpaid lecturer, and two servants. In 1900 a dental laboratory was installed in two rooms on the first floor of the same building. A dentist had charge of this laboratory.

The Growth of the Institution

The temporary organization, just described, lasted sixteen years. In 1906 the chair of extraordinary professor was created for Prof. Arkövy, and they decided to construct a special building for the school. The Minister of Public Instruction advanced $61,000 for this purpose and the architect, M. Joseph Kauser, drew the plans. The same year, by a ministerial edict, the designation "odontologic clinic" was changed to "stomatologic clinic."

The new building was erected in 1907-8 and opened in 1908. It is situated on the corner of rues Maria-utcza and Pal-utcza and covers a ground-space of 720 square meters, of which 512 meters are in the building alone. There is a basement, a ground floor and two stories.

The basement and ground floor are given over entirely to stomatology. The basement has five rooms, a large metallurgy and experimental laboratory, assembly, technical and vulcanizing rooms. On the ground floor there are six rooms: some for diagnosis, etc., others for practical and experimental technic.

The first floor contains class and assembly rooms, laboratories, etc. The class room (13.16x6.5 meters) is lighted by five large windows. On one side are the office, library, instrument and operating rooms with specially constructed chairs. The first floor has also an extraction room with three windows and three chairs, the anesthetic cabinet and toilet rooms.

The second floor is given over to operative dentistry and has eighteen chairs made after the latest patterns. A large room (17.65x6.5 meters) is lighted by six double windows and provided with twelve chairs; a smaller room (10.28x5.3 meters) has three double windows and six chairs. There are also the rooms of the teachers and assistants, an assembly room, and the bacteriologic and histologic laboratories.

One feature of the new building is that it possesses two wards on the ground floor. The ward for the men contains three beds, the one for the women two beds. Each ward has an extra bed and a room also for the wealthy. The fittings of the building cost about $22,000, of which about $5528 is for furniture and $15,536 for special equipment.

The Course of Instruction

The course of instruction includes stomatologic clinics, dental operations, theory, practice, technic, treatment of mouth conditions under inspection, prothesis, etc., under the direction of Prof. Arkövy and his able staff of assistants. Physicians who have attended lectures for one year and accomplished certain work will receive a certificate of "professor-director."

We are glad Prof. Jos. Arkövy has been thus recognized by his government, together with the other high honors conferred on him, in having this magnificent and finely equipped building placed at his disposal for the further advancement of his high ideals of stomatology. It is probably the first instance where a government has recognized an individual for such laudable work in our profession. His work is worthy emulation in America.

A Study of Syphilitic Crises

How these may simulate surgical emergencies. The importance of the most careful and exhaustive examination, and of discrimination in diagnosis. Read before the Mississippi Valley Medical Association

By MAYNARD A. AUSTIN, M. D., Anderson, Indiana
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IN our larger medical centers syphilis exhibits itself in its protean form so frequently that its recognition and diagnosis is a matter of frequent therapeutic reference. Frequently, in Dr. Senn's famous clinic, patients would be brought in for demonstration and possible operation who were sent home with a prescription for the iodides in maximum doses and told to report at a later date. On their return at various times in the next three months the diagnostic ability of that great teacher would have been verified by the disappearance of the supposed surgical condition.

The exhibition of syphilis as a surgical possibility is probably more frequent in bone and joints than otherwise.

Bone Lesions of Syphilis

Gummata of bone may simulate one of the malignant inflammations in causing necrotic changes, or, again, it may show itself resembling one of the slow-growing tumors. Syphilitic osteitis is both a degenerative and a proliferative process; especially is this true in the bone lesions of children. Generally the shafts of the long bones are enlarged, thickened and curved by unequal growth. The epiphyses may be greatly enlarged and the contiguous joint entirely disassociated. Any of the bones of the body may undergo these changes, and the irregularity of its occurrence and its asymmetry are one of its most prominent characteristics.

Gummata may form under the periosteum and produce simple nodular excrescences or undergo degeneration, with necrosis and disappearance of large areas of bone. Where this condition is one covering a long period in its development, tuberculosis and chronic arthritis must be eliminated as possibilities and can frequently be determined only after long-continued and unsuccessful treatment with the iodides. In the small bones the syphilitic process may be comparatively rapid—to such an extent that similarity to an osteomyelitis is very evident, and the tubercular and syphilitic lesions involving the fingers produce deformities that are identical. In joints we may have at their beginning a great similarity in the two infections, but their clinical course is such that observation over a short time should allow of no mistake.

Simulating "Charcot's Joint"

Several years ago a typical case of Charcot's dystrophy was seen by me which had been treated first for rheumatism and later for tuberculosis. Amputation had been advised; and treatment having been so inefficient that syphilis had been guessed at, he had been placed upon small doses of the iodides, which gave him no benefit—hence syphilis had been excluded. The patient when seen by me was placed upon enormous doses of the iodides, with the result that the swelling and deformity disappeared and the patient has had fair use of his limbs since, with the aid of lateral support.

Simulating Epithelioma

Another patient with a supposed epithelioma rapidly grew worse under x-ray treatment. The patient was the wife of a business man, the mother of several healthy children, and when referred to me was beginning to develop a nasal difficulty. The therapeutic exhibition of specific remedies not only caused the nose trouble to disap-

pear, but also the "epithelioma," which had so successfully resisted three months' x-ray treatment.

Another patient, a cigar-maker, was referred to me with a diagnosis of malignancy, having an indurated swelling that produced a marked disfiguration of the upper lip. The attending physician had made arrangements for an operation. I suggested the possibility of its being a gummatous lesion, but the physician declared against it, from the fact that he had had the patient upon the iodides (ten grains three times a day) for six weeks prior to consulting me. My advice was to raise the dosage to thirty grains, increasing if necessary to three drams a day; a month later the tumor had disappeared.

Causing Cancer of Tongue

One of the most trying conditions tnat the surgeon is called upon to contend with is a carcinoma of the tongue. A case of this was referred to me some time ago from a neighboring city. Examination of the patient showed other lesions of tertiary syphilis. The man had been a sailor in his youth, and at one time was laid up in the Marine Hospital for several months with necrotic disease of both tibias, which had left large scars on his limbs. The tongue was fissured and ulcerated, there was marked general glandular adenopathy, while the submaxillary, sublingual and cervical glands were so enlarged as to produce pressure-symptoms. Microscopic examination of tissue taken from several parts of the diseased tongue showed malignancy in only a portion of them. This is the history of so many cases of cancer of the tongue that such authorities as Senn, Billroth and Kocher state that the majority of these cases occur secondary to syphilitic infection. Under large doses of the iodides and local application of iothion the swelling on one side of the neck grew much less, showing it to be a purely inflammatory adenopathy. The other side grew larger, the pressure-symptoms became greater, swallowing became difficult, and the patient finally succumbed to starvation.

The above series of cases could be duplicated frequently, but the patients who have interested me most have been ones with supposed abdominal lesions. The first patient was a business man who had been "one of the boys" as a youth, but who gave no history of any serious crop of wild oats. He was happily married, had several healthy children, and the wife gave no history of any miscarriages. He developed a slight stomach trouble, progressively getting worse, appetite failing, some pain in region of stomach, and for a period of six months was indifferently treated for dyspepsia, "liver trouble," and gallstones.

When I first saw him he was completely helpless, being nourished by rectal feeding, and apparently near dissolution from exhaustion. Physical examination was entirely negative, blood and urinary examinations negative, stomach examination showed no evidence of tumor, tenderness, pain or hemorrhage, and no particular deviation from normal of stomach contents. The physician in attendance was treating him for gallstone, and as long as the patient would take it had been giving him olive oil. Small saponaceous masses had been passed from the bowel and the doctor was identifying them as "gallstones." The patellar and other reflexes were slightly exaggerated. The only finding of any consequence was a peculiar mottling of the skin, resembling the dermal changes that occur in Addison's disease. In this condition, however, the great debility and skin changes are commonly associated with more severe cardiac and gastric disturbances. There were no headaches, no dizziness and no evidence of pain, tenderness or enlargement in the gallbladder or liver.

My diagnosis, under these circumstances, was a tentative one of suprarenal disease. I lost sight of the patient and learned that he had been taken to a sanitarium. He remained there about three months, was brought back little or no better, but since has gradually improved in his strength, until he is able to attend to his business once more. His improvement, however, has been accompanied by the gradual onset of ataxic symp-

toms, making a diagnosis of syphilis almost a certainty and a sclerotic condition of the suprarenals a probability.

The second case is that of a young man who had been a soldier in the Spanish-American War, contracting lues in Cuba. He had been treated since his return for various cutaneous lesions. About six months before I saw him he had an attack of abdominal pain which had prostrated him and which had been followed by marked renal symptoms and the discharge for several days of what the patient said was pus from the bladder. Several similar attacks followed one another, and he was sent to the hospital with a diagnosis of abscess of the kidney. I saw him at the hospital, made a thorough examination, found no fever, no swelling, no tenderness in the kidney region, no urethral discharge, and urine examination showed no evidences of any pus, blood or bacteria, but a great excess in the amount of phosphates. The patient stated that his attacks came on suddenly without any warning, and the pain was so severe that he has fainted several times. Twice when the pain struck him he has fallen and injured his head severely. Following these attacks there would be a retention of a large amount of urine, which when voided would be thick, purulent in character and extremely foul-smelling. The excretion of a large amount of ammonium urates and phosphates and their retention in the bladder accounted for its purulent character and odor. A diagnosis of syphilitic renal crises has been verified by the appearance of ataxic symptoms in the extremities.

The third case was the least interesting, because, in addition to the abdominal symptoms, the patient had already developed such a disturbance in his coordination that it was unsafe for him to attempt any walking unaccompanied. The patellar and ocular reflexes were absent. In addition he gave a history of laryngeal crises in which spasms involved the throat, making talking impossible and breathing noisy and accompanied by signs of strangulation. The abdominal symptoms of this patient were pains associated with an obstinate constipation. The patient had been rapidly losing ground for some time before I saw him in consultation. The attending physician stated that he had found a tumor-mass in the side, and suggested that it was probably tubercular. My examination was followed by an old-fashioned mercurial purge, which removed the tumor, and since then mixed treatment has practically overcome this tendency to fecal tumor formation.

Spinal-Cord Symptoms

It is surprising that the various early manifestations of syphilitic disease of the spinal cord should be overlooked. Syphilis is not a rare disease in any community, and one should not be surprised at its appearance in the most respectable of our families. Eighty percent of the cases are said to result from innocent inoculations. The history which a patient gives is very unsatisfactory in many cases, and a disrespect which many of our patients show us in regarding the disease as a simple matter is something which we should be able to more effectively combat. The treatment of many of our obscure cases might be simplified if we were to take the advice of that past-master in the art of diagnosis who frequently stated to us students: "Gentlemen, when in doubt, put him on the iodides."

What stronger breastplate than a heart untainted?
Thrice is he armed that hath his quarrel just;
And he but naked, though locked up in steel,
Whose conscience with injustice is corrupted.

—Shakespeare.

Cross-Roads Doctors—And a Case of Morphine Poisoning

A little sermon on the value of the "back number", with suggestions about binding; also an interesting account of a case of opium poisoning in a six-months' old baby

By L. B. EVANS, M. D., Baltimore, Maryland

THE volume of CLINICAL MEDICINE for 1908 contains records of two very interesting cases of strychnine poisoning in the dog, which show clearly the value of the hyoscine, morphine and cactin combination as a physiological antidote to strychnine poisoning. The first case was reported by Dr. Beardsley, page 675, the second being reported by Dr. Mott, page 989, the latter verifying the observations of Dr. Beardsley. Every reader of CLINICAL MEDICINE should read those articles and be on the lookout for new cases to put on record.

I think the readers of this journal will agree with me that its editors are doing more for the family doctor in teaching him the secrets of success in the practice of therapeutics than the editors of any other ten journals combined, including even *The Journal of the American Medical Association* whose notorious editor has got befuddled over functional diseases and is exploiting in his editorials that new myth, the satellite of Christian science—more correctly Christian ignorance—the Emmanuel movement.

Report Your Cases of Strychnine Poisoning

I hope that every reader who has treated a case of strychnine poisoning—whether in a canine quadruped, an anthropoid, an African anthropus, or a higher member of the genus Homo—will report it in the pages of CLINICAL MEDICINE for the benefit of its readers, in order that these reports may contribute to make it the very archives of therapeutics. Such reports as these carry the weight of conviction; and, separately considered, each is worth more to therapeutics than any dissertation on a "thousand Munich cases."

Science has been built up on simple facts which were first observed singly, then from time to time verified by different observers, and not from any data gathered from the law of general average. The doctor often feels that because he is not a professor in a big medical college his message is of no importance to the profession and he will not be heard, or he will be criticised and laughed at by someone of the "I-am-it." But I would rather have that mass of knowledge which all of you doctors at the cross-roads have gathered from widely varying sources than to have the knowledge of the most high-famed professor in the world. It is to such as you that science owes its progress, and the idea that "one case does not establish a fact" is preposterous.

Keep Your Volumes of Clinical Medicine

These volumes of CLINICAL MEDICINE are valuable and *you should preserve them for future reference.* In looking over a bound volume you will be surprised to note how many things have escaped your notice. Unfortunately, however, many of you are so situated that you do not have access to a book-binder. However, as a special favor to those doctors at the cross-roads who appreciate scientific advance in therapeutics to the disparagement of therapeutic nihilism and ultraconservatism, I will have their volumes bound in a neat, attractive, half-leather binding of lifetime quality for $1.25 per volume. The preservation of Dr. Gould's article (Jan., 1909) alone is worth the cost of binding. The observations made by the doctors at the cross-roads will always be valuable, for their descriptions are never overshadowed

by an erudite verbiage of things which they have not seen.

A few years ago a gentleman from the South had the professorship of chemistry in one of our colleges. Every winter he would come up here and deliver his lectures in full-dress. In the course of the lecture he would say, "Gentlemen, we shall prove this statement by a simple experiment." Then, after working for a quarter of an hour to produce the experiment, he would give up in despair, saying, "Gentlemen, the experiment is a failure"

When Statements Are Put to the Test

So it is with many of the other professors. When their statements are put to the test, they prove to be failures. I have known professors to describe murmurs in the chest of patients which nobody else could hear, while in the incident to be related the assistant demonstrator of bacteriology could recognize something that was not present.

Once, while I was a student at college, the class was staining specimens of the spirillum of Finkler and Prior while I was engaged in staining specimens of bacteria from drinking water. The assistant demonstrator was an upstart, fresh from Johns Hopkins, and I called him to look at my specimen. "Yes," he said, "you have a beauty." Then, turning around with a pompous air, he called out: "Here, here is a good specimen of the spirillum of Finkler and Prior."

In another instance, of which I have personal knowledge, an adjunct associate professor of nervous diseases, also from Johns Hopkins, used the same patient, an old negro slave, on three separate occasions in giving clinics on neurasthenia, hysteria, and paresis respectively. The sections of students were charmed by his illustrated discoveries, committed to memory from Starr's textbook of nervous diseases, and never tumbled to the racket.

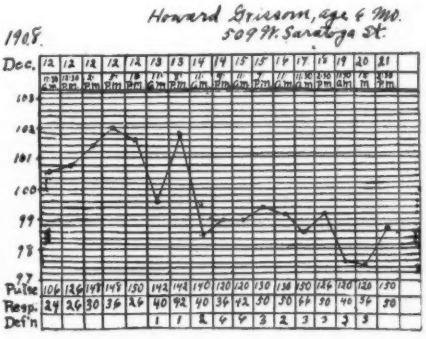
"What textbook on nervous diseases do you recommend?" asked a student.

"The faculty recommends Dana. I don't recommend any. There are no good textbooks in English," was the sweeping disappointing reply.

I have written this not to reflect upon the professors but to mitigate your fears. For it is your separate stories, your observations of single facts, that we want to hear.

I have no case of strychnine poisoning to report; but I have one, perhaps of no less interest, of morphine poisoning in a child of six months, in which the alkaloids and active principle, strychnine, aconitine and digitalin, were used effectively in treating the symptom-complex.

The baby in question had been sick with a cold for more than a week, and the mother had tried everything she knew of or that was suggested to her—except a doctor. The child had fever and continued to cough and cry. This was annoying to a neighbor, who



suggested giving the child a dose of laudanum to keep it quiet, for she had "raised her children on it." The mother decided to try half a dessertspoonful, or about a dram, taken from a bottle that had been left by a previous occupant of the room.

The dose of laudanum was given at about eight o'clock in the evening, and when the father came home at 9:30 p. m. the child was in such profound stupor that it could not be aroused. When he learned what his wife had done he threw the bottle into the fire.

The night passed, and the child still slept on; by noon the next day the women of the house became alarmed at the child's peculiar dusky, bluish look, the glassy eyes, the fixed stare, and the mucous rattle in the chest, and

told the mother that she had better get a doctor for the child at once, for "it was dying." The mother came to my office, wringing her hands in despair and with the tears streaming down the cheeks. She told me that her child was having spasms and to come at once for she was afraid that it was going to die.

I found the child in bed with the head and spine curved backward, the muscles of the limbs were rigid, the eyes were fixed, turned backward and glassy; the pupils were strongly contracted to a pinhead size, and unconsciousness was profound. The respirations were of the Cheyne-Stokes type, the deep respirations being about three to the minute, the total number making twenty-four an hour. The lips and finger-nails were a dusky blue from the increasing carbon-dioxide narcosis.

The child had not nursed for sixteen hours, nor had it voided urine or feces. It was startled by a loud noise from the slamming of a door, and the pupils dilated to about the normal size and remained for a moment, while the muscles of the body jerked or twitched, and then the pupil contracted again to the pinhead size. Loud pleuritic friction was heard over the chest, and crepitant râles with rattling of mucous in the bronchus. Hyperresonance as elicited on percussion. Palpation was negative, for the child could not be made to cry. The temperature was 100.6°F., the pulse 106 and of low volume. Diagnosis: Opium poisoning, bronchopneumonia, and a dying baby.

The Doctor's Bill or the Undertaker's?

"What have you been giving it, madam? Laudanum! Your child is suffering from laudanum poisoning in addition to bronchopneumonia. When will people ever let drugs alone! Why didn't you call a doctor?"

"Well, my husband is not making much money now, and after we pay the expense of living and the room-rent we have little left to pay a doctor's bill."

"But you had better pay the doctor's bill than pay the undertaker's bill. Go to the drugstore and get this; I'll do all I can to save your baby."

While the mother was gone I made a solution of aconitine, Gm. 0.005; strychnine arsenate, Gm. 0.0005; and digitalin, Gm. 0.001, in twelve dessertspoonfuls of water, and gave it a half dessertspoonful at once. Then I waited, and time began to drag. Five minutes seemed like fifteen, and at the end of seven minutes I gave it another dose. When the mother returned I had given six doses, and the pulse was a little stronger. We now stripped the child, covered its chest with antiphlogistine and wrapped it in cotton. It was now one o'clock in the afternoon, and I left instructions with the mother to give the medicine every half hour until I returned, and to change the child to a different position after giving each dose.

At 2 p. m. the child's temperature had risen to 101.4°F., the pulse to 148, and the respiration to 30; at 5 p. m. the temperature had risen to 102°F., pulse to 148, and the respirations to 36—an increase of 1.4 degrees over the noon temperature, and of 42 beats of the pulse to the minute. The baby was kept quiet, being moved only every half hour when the medicine was given. At 10 p. m. the pupils were still contracted, but the child could make a faint cry, and it had voided urine. At 11 a. m. on the following morning he could take notice. The pulse now was 142, the respiration 40, and temperature 99.6°F. The pupils were larger, but not normal. At 8 p. m. the temperature had risen to 101.8°F.; but on the following morning it had dropped to 98.4°F., to rise no more; this after a free bowel movement, and after a total quantity of 1-35 grain of strychnine arsenate, 1-28 grain of digitalin, and 1-35 grain of amorphous aconitine had been given in the period of 47 hours. The pupils were normal. The bowels had moved four times, but in the next twenty-four hours they moved twelve times, owing to a purgative effect of strychnine arsenate. The child made a complete recovery, and the subsequent history is uneventful.

Was It Bronchopneumonia? A Challenge

No doubt some confirmed nihilist will hiss and sneer at this report, and will say that it was not bronchopenumonia at all. That,

however, will not detract from the value of the facts herein given, and I would rather assume that it was bronchopneumonia than to attempt to prove that it was not. Still, in order to give him an opportunity either to put up or shut up, I will offer a wager of $100 for each and every case of pneumonia which I cannot diagnose and treat successfully, in a competitive test with him, provided he will give me one hundred dollars for each and every case he diagnosis, and treats, and loses by the established hospital method—a method that has not advanced in the last one hundred years; which has slain and perhaps is slaying as high as 45 percent in the hospitals of Baltimore; and which is valuable only for its property of weeding out the deadbeats from the doctor's practice, and for furnishing ample material at the postmortem for the pathologist.

Furthermore, in looking over the chart, we observe that the first effect of treatment was to produce a primary rise in temperature. This increase in temperature can be explained by an increase in the force and frequency of the pulse.

Some observers claim that a rapid rise of temperature is associated with a rapid fall of the opsonic index. To me it seems to have a direct relation to the degree of toxemia, and I look on the absorption of toxins from the intestinal canal as by far the greatest source of febrile heat. "Depletion of the bowel," as advocated by Hippocrates and spurned by Osler, is one of the most important duties of the physician in treating the febrile process. For a man to say, "I have never seen constipation do any harm," means nothing except that he has never used his eyes to observe the facts.

Someone who knows less of pharmacology perhaps than of anything else has asked the following question (*J. A. M. A.*, Vol. lii, p. 906):

"Do you know of any ponderable drugs that cause temperature to rise when subnormal? If so, which?"

Answer: "Drugs which increase oxidation may cause a rise of temperature to the normal, but above this point physiologic heat regulation would compensate for the increased heat production unless some cause of fever were present. Atropine in moderate doses raises the temperature. Strychnine, caffeine, digitalin, and idiothyrin produce a similar effect."

Cushny says that "strychnine produces an enormous activity of the muscles, and therefore increases very greatly the consumption of oxygen and the output of carbonic acid. This increased excretion of carbonic acid occurs, though to a less extent, even when the muscular contraction has been previously eliminated by curare, and must, therefore, be due in part to the contraction of the involuntary muscles of the vascular walls and perhaps to the increased metabolism of the central nervous system."

BE CHEERFUL

CHEERFULNESS is more precious than great riches. If I were founding a new religion its first commandment should be: "Thou shalt be cheerful."

If I were instituting a new school of medicine its fundamental principle would be: cheerfulness on the part of the doctor, and for the patient good cheer.

For in the symphony of life much gold without cheerfulness is as sounding brass and clanging cymbal. Religion without cheerfulness is a mockery. Success in the cure of most maladies depends upon faith and hope and cheerfulness.

The optimist is cheerfulness personified; the pessimist a walking grouch. The cheerful optimist makes the progress of humanity; the growling pessimist would turn back the wheel of time. A bas with pessimism! Let cheerfulness reign supreme.

—Dr. Emory Lanphear in "Backbone"

SURGICAL AND GYNECOLOGICAL NOTES

BY EMORY LANPHEAR, M. D., LL. D.

DECAPSULATION IN PUERPERAL ECLAMPSIA

When convulsions continue after delivery of the child, and in those cases of puerperal eclampsia developing *post partum*, operation is advisable if the spasms are not easily controlled by the usual remedies. Decapsulation of both kidneys may be done in a few minutes by an experienced operator with only a little chloroform. Quite a number of patients apparently moribund have been saved by this procedure.

MUCOUS PATCHES

During the progress of secondary syphilis mucous patches in the mouth and ulcers elsewhere may persist even though the proper internal medication be maintained at the limit of toleration. Such patches and ulcers may be touched with pure nitric acid, or better, cocainized and lightly burned with the Paquelin cautery. If they resist these measures curetting is advisable.

GONORRHEAL VESICULITIS

It is now claimed that chronic vesiculitis and prostatitis due to gonorrheal infection may be cured by static electricity used through the rectum. The patient is placed in the Sims position on an insulated table at least three feet from the machine and a specially constructed, insulated vacuum-electrode introduced into the rectum—this form of electrode being effective while the ordinary form of metal does not succeed. The electrode is placed against the seminal vesicles and prostate and maintained by the usual tube-holder, or it may be held by the patient. A connecting wire or rheophore is fastened to the electrode and the negative side of the static machine; the positive wire grounded.

Treatment is begun with a weak current as indicated by a small spark-gap, the strength being gradually increased according to the tolerance of the patient—production of much pain being inexcusable. Each seance should continue twenty minutes and be repeated daily for two weeks, then every other day until "strippings" from the vesicles and prostate show no more gonococci by repeated microscopic examination. Usually about six weeks will be required to reduce the organs to normal size and to cause disappearance of the infecting germs.

CONCEALED CHANCRE

Many surgeons hesitate to expose the glans penis when confronted with some venereal lesion associated with phimosis, fearing chancroidal, gonorrheal or phagedenal infection of the cut surface. There should be no hesitancy—every venereal sore concealed by a nonretractive prepuce should be promptly exposed by dorsal incision of the foreskin, with complete circumcision if indicated. The venereal lesion, whatever it may be, can then be recognized as to nature and correctly treated. To administer large doses of mercury and iodides to a patient suffering merely from chancroids is wholly inexcusable. The rule should be to expose every suspected chancre or chancroid.

HEALING IN LUETIC PATIENTS

The old prejudice against operating upon patients known to be syphilitic is practically unknown to this generation, the abolition of septic infection of wounds having rendered the extensive necrosis formerly so conspicuous practically absent. Operations of the most extensive kind are now performed upon patients on whom the disease is under fair control. Aseptic work upon properly sterilized fields is followed by primary union and

perfect results just as in uninfected subjects. But the surgeon should be extremely careful not to cut or prick himself when operating upon a patient still in the secondary stage. Even early tertiary may be infective.

CALCULUS IN THE URETHRA

Rarely a stone may lodge in the prostatic urethra and cause great irritation. Sometimes it may be felt by a sound, sometimes located by sight through an endoscope. If it cannot be removed by long, thin forceps introduced through the endoscope it may be taken by external urethrotomy. Patients thus affected are very grateful for relief from the intense suffering sometimes endured for months.

SALVE FOR BURNS

Burns of moderate degree may be treated thus: Clean the area around the burn by hot phenol solution (5 percent); prick the blisters and swab the burned surface with phenol solution so gently as not to tear the epidermis; cover with gauze in which numerous small holes have been cut and on which has been thickly smeared an ointment consisting of

Oil of thyme	1.0
Oil of geranium	1.0
Oil of vervain	1.0
Oil of origanum	1.0
Petrolatum	100.0

This is very soothing and possesses marked antiseptic properties. The dressing should be changed daily.

CARCINOMA ON LUPUS BASE

Every possible effort should be made to cure lupus vulgaris as early as possible. In a considerable proportion of chronic cases of lupoid ulcer, possibly by reason of the chronic irritation, cancer will develop. The type is epithelioma. Since the introduction of the x-ray for the healing (and often cure) of lupus, carcinomatous growths upon lupus bases have become rather more frequent, because many exposures of even healthy skin to the x-ray will lead to the development of cancer in many individuals. As soon as cancerous change is suspected wide incision is imperative, followed by some weeks' treatment with x-radiance after healing is perfect.

PYLORIC STENOSIS

Detection of sarcinæ in the contents of the stomach or in the stool may be regarded as quite positive proof of the existence of stenosis of the pylorus. Therefore repeated microscopic examination should be made in every suspicious case.

STREPTOCOCCUS INFECTION OF NOSE

When symptoms of sepsis cannot be traced to any other source the pharynx and posterior nares should be examined, for streptococcic infection of the pharyngeal adenoid tissue is not so very uncommon even in adults. Clearing away the broken-down tissue with an adenoid-curet, disinfection with solution of potassium chlorate and thymol repeatedly, with general supportive treatment usually affords speedy relief—just as the same measures do in the streptococcic infections of the same tissues during scarlet-fever in childhood. In exceedingly bad cases Marmorek's antistreptococcus serum may be injected.

STONE IN THE KIDNEY

In fully one-third of all cases operated upon for renal calculus no stone is found, though almost always some other condition is revealed amenable to surgical measures. The fault lies often with misinterpretation of the skiagraph: shadows of calcified lymph-nodes, phlebitis, calcareous deposits in the sacrosciatic ligament or in the appendices epiploicæ being mistaken for those of renal stones. All shadows which do not give well-defined edges should be regarded with suspicion. About one-fourth of all stones will give no x-ray picture. But the experienced man will be content to open the

kidney whenever lumbar pain, localized tenderness and one-sided hematuria persist, regardless of the x-ray evidence; for if stone is not the cause nephrotomy is still of advantage both for diagnostic and curative purposes.

MASTOIDITIS

Whenever tenderness over the antrum persists more than three days after opening the membrane operation should be insisted upon. Sudden diminution in the discharge from the ear with continuance of other symptoms also calls for immediate opening of the mastoid cells, antrum and middle ear from behind. Quantities of pus too great to be produced in such small space as the tympanum is likewise indicative of such involvement of the mastoid cells as to require opening them freely.

OSTEOSARCOMA OF KNEE

Experience demonstrates the inutility of resection or other conservative treatment of osteosarcoma at the knee-joint. Amputation near or at the hip is the only treatment to be considered. It must be done as soon as the character of the trouble is ascertained.

APPENDICITIS IN CHILDHOOD

While appendicitis in children does not differ essentially from that in adults in pathology and indications for treatment there are certain prominent points which should be considered, especially in the matter of diagnosis. For the history is often obscure, the child having failed to report early belly-pain from fear of punishment for some presumed indiscretion in eating; besides, chest symptoms are likely to be present and obscure the abdominal; and, finally, the early indications are frequently toward some of the infectious diseases rather than a surgical lesion of the appendix.

These clinical facts together with the pathologic peculiarities make this disease rather more dangerous in childhood than in mature life—the peculiarities being that (*a*) the walls of the appendix offer less resistance in early life than later, and (*b*) the omentum being immature does not perform that protective function so much depended upon both by physician and surgeon in older patients. For the same reasons operative treatment is advisable at the earliest possible moment.

Pronounced tenderness in the right lower quadrant of the abdomen, recurrent vomiting, temperature of 100°F. or thereabouts without other discoverable cause, persistent drawing up of right leg, abdominal distension and pain, with leukocytosis may be taken as a symptom-group imperatively demanding exposure of the appendix.

RHEUMATISM OF APPENDIX

It is the opinion of some clinicans that in some cases commonly called "catarrhal appendicitis" the cause of distress is sometimes the same as that of acute rheumatic fever. Certain it is that some patients promptly recover upon administration of the salicylates in the same dosage as would be effective in rheumatic fever: half a Gram (8 grains) of sodium salicylate every three or four hours. If the symptoms do not yield in twenty-four hours the treatment should be discontinued and operative treatment instituted.

TUMORS OF SALIVARY GLANDS

Nonmalignant tumors of the salivary glands are so very rare that it is a good rule to remove any growth as soon as discovered. Even the mixed tumors show malignant change in fully one-fourth of all cases; and late removal of apparently benign neoplasms is followed by appearance of malignant recurrent growth in fully a third of all cases.

SYPHILITIC BUBO

No good can be accomplished by excision of syphilitic bubo; but frequently bubo following undoubted syphilitic infection has chancroidal, gonococcal or staphylococcal infection added and suppuration results.

As soon as fluctuation can be detected free incision must be made and packing inserted to maintain drainage; but curetting the walls of the abscess-cavity is highly condemnable. A simple dry dressing is all that is needed, though bismuth subiodide, either alone or mixed with an equal quantity of boric acid, makes an admirable dusting powder. The wound should not be washed subsequently. If the patient will consent to general anesthesia, far better than simple incision is complete extirpation of the entire infected gland. It saves many days of suffering and many dollars paid for dressings.

::: DIAGNOSTIC NOTES :::

THE PHTHISICAL CHEST

The phthisical chest is characterized by a bilateral contraction. It is narrow and flat, especially at the upper part; the intercostal spaces are wide, the ribs incline downward from the sternum and are bent at a sharp angle in order to come back to the vertebræ. This elongation and sloping from the sternum makes the costal angle acute. The anteroposterior diameter is shortened, and the scapulæ stand out like alæ, or wings.

KERNIG'S SIGN

Kernig's sign is a flexion contracture of the knee-joint involving the hamstring muscles. When the sign is present in the sitting posture the leg cannot, without violence, be straightened beyond an angle of 135 degrees with the thigh; but it can be readily straightened when the patient is in the erect or recumbent posture. The sign is of great value in the diagnosis of cerebrospinal meningitis.

THE BOAS-OPPLER BACILLUS

The presence of the Boas-Oppler bacillus n stomach washings is not to be absolutely depended upon as a diagnostic feature of cancer. Microscopists find it in many conditions associated with stasis of the stomach-contents. It is diagnostic of impaired motility or, rather, delayed evacuation, which may be from either inherent loss of muscular tone or pyloric stenosis.—*Med. Herald.*

BILE IN THE URINE

Chloroform is a delicate and certain test for bile in urine. If a few drops be added to a little urine in a test-tube, the chloroform will become turbid and acquire a yellowish tint if bile is present—darker or lighter, according to the quantity of bile present.

THE CORRIGAN PULSE

Corrigan's socalled "water-hammer" pulse is characteristic of aortic insufficiency. Its receding character is due to the nonsupport of the great quantity of blood thrown out by the hypertrophied left ventricle, the aortic valves not closing perfectly, thus permitting regurgitation. It is regular in rhythm during compensation.—*Ohio State Journal of Medicine.*

KRAUROSIS VULVÆ

Dalche describes three forms of this malady. [In one the vulva is covered with reddish points and ramifying arterioles. This is the red or inflammatory type described by Tait. The follicular type is an inflammation of the glandular follicles of the vestibule and periurethral region. The white, or leucoplastic, type is characterized by the presence of whitish, opalescent patches, and leads gradually to atrophy of the vulva and clitoris. The cause is unknown, Dalche

referring it to ovarian insufficiency. Intense itching occasionally attends it. Usually it is incurable. [I have never failed to give complete relief by the application of europhen. —Ed.]

A DIFFERENTIAL TUBERCULO-CUTANEOUS REACTION

Detre has developed the Von Pirquet test. He inoculates three different spots in the patient's arm with three different tuberculins —old tuberculin, tuberculin from a culture of human tubercle bacilli and that from a culture of bovine bacilli. If none of the inoculations give a reaction the patient is considered free from tuberculosis. If the culture of bovine bacilli produces a stronger reaction than that of the human bacilli the infection is of bovine origin; if the reverse, the infection is due to human bacilli. This method may be trustworthy or not, and if so, not only throws light upon the etiology of the disease but enables a rational immunization therapy to be carried out. Human tuberculin being used for human infection and bovine for those with the bovine infection. —*Wien. Klin. Wochenschr.*, 1908, No. 41.

::: THERAPEUTIC NOTES :::

CHANGES IN FOWLER'S SOLUTION

An exchange says that Fowler's solution under ordinary conditions undergoes progressive oxidation, the arsenite becoming gradually converted into arsenate. Since the latter is much less toxic than the former, the change lessens the therapeutic activity. This probably accounts for the enormous doses of Fowler's solution sometimes recorded. Arsenic preparations in granules with pure sugar of milk undergo no change that can be detected, even after twenty years from the time they were manufactured.

THOSE HARDY ADVENTURERS

No less than three firms have announced their intention to exhibit drugs at the Atlantic City meeting. The names of these hardy adventurers should be immortalized. They are Squibb and Wampole of America, and Burroughs, Welcome & Co. of England. We look with interest to the result of this daring innovation.

BUTTERMILK DURING PREGNANCY

Observations on the diuretic action of a number of the most approved diuretics in the materia medica, and on buttermilk, have up to the present shown the latter to be far in advance of either of the others or of any combination that has been made. This isn't commercial. It probably isn't very scientific, but it's true, nevertheless. The fact is that we have in buttermilk a therapeutic agency whose potency is little understood by far too many physicians.

In the first year of his general practice the writer began prescribing the buttermilk diet to every woman who engaged him to attend her during confinement. During upwards of twenty years of active practice he did not have a solitary case of eclampsia in any woman thus treated, depending for his experience in this disease solely upon consultation cases.

ANEURYSM AND ITS TREATMENT

A case presented by M'Phedran, in *The Canadian Journal of Medicine and Surgery*, emphasizes the importance of persistent localized pain as a symptom of aneurysm of the descending thoracic aorta. The pain is usually more severe when blood-pressure is increased. For some years I have been giving especial attention to veratrine as an agent by which vascular pressure, when excessive, can be controlled for months without intermission, at exactly the point

deemed desirable by the physician. I fear that the importance of such a remedy is not appreciated by those who have in their hands the management of inoperable cases of aneurysm.

TUBERCULOSIS OF KIDNEY

The old treatment for tuberculosis of the kidney was incision and drainage: nephrotomy. Many patients thus treated died of sepsis. Now, therefore, all experienced operators perform nephrectomy when the lesion is of one kidney alone, or when the opposite kidney is performing its function perfectly.

WHY NOT SAVE HALF?

N. A. R. D. Notes says that the total drug importation into this country amounts to twenty million dollars: one-half of this sum could be saved to this country by raising our own drug-plants and extracting our own alkaloids.

ARTIFICIAL OR NATURAL SALICYLIC ACID

Pure synthetic salicylic acid, being much cheaper, has practically superseded the variety prepared from oil of wintergreen. There are, however, many good clinical observers who maintain that their therapeutic actions are not identical. At all events, in obstinate cases of acute rheumatism it is not a bad plan to try the natural product.—Murrell, *Merck's Archives.*

DRUGS AND ALCOHOL

In *The Boston Medical & Surgical Journal* Cabot contributes a brief note as to the use of alcohol and other drugs in the great Massachusetts General Hospital. Since 1900 the cost of drugs per patient has fallen from $2.02 to $0.92. At the same time the cost of alcohol per patient has fallen from $0.48 to $0.13. The change he attributes to the increased use of other methods of treatment, and to the facts becoming generally known "that alcohol is not a stimulant but a narcotic, and that drugs can cure only about half a dozen of the diseases against which we are contending."

It is a pity that the author did not add a comparative statement as to the results achieved by treatment in the same period. Without this the principal item of interest in this communication is the revelation it gives of the ignorance of drug therapeutics displayed by the reporter.

SHOCK DURING ANESTHESIA

At the last meeting of the Section of Anesthetics of the British Medical Association Dudley W. Buckston discussed the treatment of shock during anesthesia. He considered it most important that oxygen should be given with anesthetics. For nervous people and those who were unable to sleep the employment of the morphine-scopolamine method was valuable, as it soothed and also lessened the amount of anesthetic required. Other alkaloids were less useful. Sir Victor Horsley said that shock due to anesthetics was caused by overdosage, and was proportional to the amount administered.—*Lancet.*

CHICAGO'S TUBERCULOSIS SANATORIUM

By an overwhelming majority Chicago voted, April 6, in favor of the establishment of a sanatorium for the tuberculous of that city. This decisive vote may be taken not only as an indication of Chicago's general intelligence and appreciation of the importance of the matter and the proper way of handling it but as a token of her confidence in Dr. W. A. Evans, who especially advocated the measure.

CHRISTIAN SCIENCE ARGUMENTS

Reid makes a suggestion that possibly may interest some of our readers. He says: "I wonder if somebody should put a snake into Mrs. Eddy's bed, unbeknown to her, and upon the old lady's retiring to woo the silence she should suddenly realize that

something was the matter, would she serenely fold her hands and affirm, 'All is good, there is no evil! all is mind, there is no matter!' or would she unceremoniously and unprayerfully hop out of bed?"

GOOD FOR THIS DRUG FIRM

Starbuck and Starbuck, of the Greater Gem pharmacy, Fullerton, Calif., are doing just what we have advised for many years in the way of refilling prescriptions. The following sticker is attached to every prescription leaving their store: "Physicians frequently use drugs in a prescription for temporary troubles and wish changes made to meet new conditions before allowing them refilled. Frequently a refill under changed conditions is ineffective or even very dangerous, hence we refill or copy no prescription without an order from the physician who wrote it." This is the idea for which we have long been contending, and if followed out will prove a big paying proposition.—*Pacific Drug Review.*

SHALL WE WAIT FOR THE SCIENTIST?

If suffering humanity and the physicans who seek to relieve it should have to wait before undertaking any practical measures until the scientists have solved the medical problems in a manner that is definite and upon which they could agree among themselves, therapeutics would be in a much more imperfect state than it is today.—Metchnikoff.

INTESTINAL TORPOR

The following study has been made on an interesting case of torpor of the large intestines, and toxemia resulting whenever the slightest neglect allows the retention of fecal matter. The patient employs a colonic flush every day. Full doses of vegetable cathartics cannot be tolerated. Phenolphthalein given alone needs to be given in 5- to 6-grain doses, and the result is not satisfactory. The patient finds that three anti-constipation granules with 1 or 2 grains of phenolphthalein, taken at bedtime, gives quite satisfactory results; the one acting as a laxative, the other stimulating peristalsis. It seems probable that the addition of one or the other of the strychnine group, rather than an increase in the dose of strychnine itself, would here be advisable. My suggestion is to add thebaine in moderate doses, gradually increasing until an effect is manifested.

FECAL IMPACTION

For fecal impaction associated with auto-intoxication it is best to give a hypodermic injection of morphine, gr. 1-16, and then to administer eserine, gr. 1-80, every four hours until the desired result is produced; or failing to obtain relief thereby, high enemas, copious and regularly repeated, containing ox-gall and magnesium sulphate, may be tried. Though the recommendation of intestinal antiseptics may seem futile, I have nevertheless observed manifest improvement from their use in cases attended with marked meteorism.—Anders, *Merck's Archives.*

ATROPINE IN ASTHMA

Terray urges the use of atropine as a remedy for asthma. He gives half a milligram once a day, increasing every two or three days until four to six similar doses are taken, then gradually reducing to one dose a day. Atropine not only arrests an attack but seems to prevent recurrence.—*Med. Bulletin.*

ATROPINE IN STOMACH TROUBLES

Von Tabora reports good results in gastric ulcer with hypersecretion and muscular insufficiency from atropine. He injects one milligram morning and evening hypodermically; sometimes three milligrams daily for four to ten weeks. The treatment commences with fasting for a few days, following with Von Leube's diet, the patient keeping perfect rest. Hypersecretion soon ceases, acidity diminishes, the insufficiency and spasmodic pylorous contractions disappear.—*Medical Bulletin.*

The Absorption of Aconitine

The conditions which most favor it, giving a basis for its efficient therapeutic use; with a number of interesting clinical observations on this remedy

IT is a well-established therapeutic rule when a medicament is administered to think of the means which should favor its absorption and to avoid circumstances that might hinder the same.

For the last nearly forty years aconitine granules have been taken daily by thousands of patients and no accident had been produced by them, so that certain physicians who are inveterate adorers of routine and enemies of progress strive to peddle the idea that dosimetric granules contain no medicament and act by suggestion merely, the same as homeopathic granules do.

This, though, is too dangerous an error to be allowed to pass without refutation. Just let anyone crush a single one of these granules between his teeth, feel its acrid taste and burning in the throat; this should convince the incredulous ones. But this is not sufficient in medical practice. Aconitine is of too great importance in therapeutics, and its administration must be with precision, on the one hand as to the circumstances which allow the development of its beneficient action, and on the other hand as to those which may produce its toxic action.

It must be remembered that the elimination of aconitine should be in proportion to its absorption, and that this elimination is accomplished principally by the intestines and skin and but slightly by the kidneys. This is perhaps the reason why aconitine is so very rarely given hypodermically, as is done so frequently with morphine and pilocarpine. Besides it is a fact, already judiciously pointed out by Van Renterghem, that the hypodermic injection of aconitine is very painful.

When we give a patient aconitine we must always ascertain the condition of his intestines beforehand, and also the state of the temperature of the organs and of the skin, whether they are in a condition to favor elimination by these two routes.

When the patient is in a febrile state and the intestines are properly cleaned (as is invariably the practice in alkalometry) the elimination is accomplished in a regular way so that the physician needs apprehend no accident, and the fact is that it never does happen. But the same is not the case in neuralgias, for instance, where we order the granules to be taken after meals when the condition of the intestine is unfavorable. In these cases we may meet with accidents supervening on the administration of minute doses of aconitine. [The author refers to an interesting article by Dr. LeGrix in *La Dosimetrie*, January, 1898, which we may translate in the near future for our readers. —THE GLEANER.] A case in point is the following:

Mr. K., aged 60, of a robust constitution, has been troubled for some time past with very painful facial neuralgia. He tried

nearly all the remedies usually given by the official schools for this disease and decided at last to ask my counsel. As the patient led a sedentary life and had therefore a tendency to constipation I prescribed for him a tablespoonful of effervescent magnesium sulphide every eight or ten days, then every morning a teaspoonful of the same in half a tumbler of water. After that I ordered two or three granules of aconitine every hour between the neuralgic attacks. During the attack he was to take one granule of aconitine every half hour, and if need be every quarter of an hour until the pain was calmed.

I did not see Mr. K. for some weeks after that. Then one night he called for me under the following circumstances: The neuralgic attacks had ceased, his general condition became better and he discontinued taking the medicaments prescribed by me. One Saturday evening the neuralgia reappeared consequent on an exposure to a draught of air. He was to accompany his wife and daughter that evening to a dancing soiree. He thought it therefore best to take some granules of aconitine at half-hour intervals after supper, and he took the tube of aconitine granules with him in his pocket, intending to continue taking them during the evening should it become necessary. He took two granules between ten and eleven o'clock that evening. He was taken with a chill about midnight. His wife in despair to get him warmed up gave him two glasses, one after another, of champagne to drink. He became warmed up and about two o'clock after midnight he took some supper. A short while after that the chills returned and stronger than before. He went home, and as he did not feel better on lying down his wife sent for me.

When I came I found Mr. K. in a chill and it was impossible to warm him up in spite of warm cloths, hot bricks and bottles of hot water. He complained of dryness in the throat, prickling of the tongue and that the objects around him were turning and shaking. His respiration became more and more difficult and the pulse became weaker every moment. Artificial respiration was made, immediately followed by hypodermics of caffeine and ether, and after about an hour all danger was averted.

Next morning upon inquiry Mr. K. informed us that he had not had a passage from his bowels the last three days.

The short history of this case shows how important it is to be circumspect and well informed about our patients when we prescribe for them any preparations of aconite, and especially when prescribing aconitine, since the very same substance can have the best or also the worst effect according as the temperature and the condition of the bowels and kidneys of the patient may happen to be.

In cases of severe continuous fever alkaloidotherapists have used aconitine alone or in combination with strychnine and digitalin in the dosimetric trinity or the defervescent compound to the number of forty or fifty without any further interruption than that of the patient's sleep, and the results were always the most happy ones, and the granules they used were the very same kind which put Mr. K. in that terrible condition after taking but about eight of them. This shows that when we give aconitine we must see to it more even than when we give any other alkaloid that (1) there be nothing to act against elimination, and (2) that every cause of fecal accumulation be avoided. The physician should moreover favor diaphoresis and alvine evacuations as much as possible. Under these conditions alone aconitine becomes, as Prof. Laura has well said, "the calmative *par excellence* and the regulator most active of the functions of the grand centers of the brain and of the circulation." This is, says Laura further, "the heroic remedy in continuous fevers, above all in eruptive and infectious ones."

We must seek to proportion the doses to the violence of the fever and to the degree of the patient's power of resistance, and for these we must inform ourselves about his temperature, first by thermometer and then by the touch. We must see whether the intestines are able to eliminate the medicament, and this we may learn from fecal matter the patient has been passing and

which have encumbered him. This is the part played by the saline laxative in facilitating the absorption of the granules. Lastly, we have to assure ourselves of the condition of the kidneys.

To sum up what must be done in administering aconitine granules we say: Never forget, even in the most ordinary kind of neuralgia, to avoid most carefully anything that would hinder the absorption of the medicine and so favor its accumulation.—Dr. Berchon, in *La Dosimetrie*, March, 1909.

TREATMENT OF CORYZA

Take equal parts of menthol and chloroform, dissolve and label: "For inhalation." This solution being very volatile, it should be corked, and then the container be further secured with paraffin; or it may be put up in glass tubes of two Grams each and hermetically sealed. Five such tubes will be enough to treat a case of coryza.—Vidal de Castres, *Gazette des Hopitaux*, 1909, p. 177.

CANTHARIDES IN EPITHELIAL NEPHRITIS

Lancercaux insists that before undertaking any therapeutic measures in nephritis a clear anatomo-pathologic diagnosis should be made. Then, when the scantiness of urine and the presence of casts show that we have a case of epithelial nephritis it will be of advantage to employ tincture of cantharides. Lancercaux gives 5 drops of the tincture a day and increases progressively to 12 drops. He has obtained excellent results from this treatment.—*La Medecine Orientale*, 1909, p. 139.

ACTION OF POTASSIUM BITARTRATE

Dr. H. Eichhorst of Zuerich, Switzerland, in a recent clinical lecture discussed the valuable effects in certain diseases of cream of tartar, a remedy which has fallen into almost total oblivion in modern times. In a number of cases of hepatic cirrhosis the daily diet consisted of one and a half liters of boiled milk, light farinaceous dishes, very little meat, no wine. The medicine given consisted of 1 ounce of potassium bitartrate dissolved in 12 ounces of sweetened decoction of althea, the dose being one tablespoonful every two hours. It was continued for a long time.

The good effects of the medicament became apparent only slowly, but surely; quick results are not to be expected and larger doses are to no purpose. The effects of the tartar on an alcoholic hepatic cirrhosis depends withal upon its diuretic action. The author thinks that his experience proves that it is wrong to use this remedy so rarely and to leave it out altogether from our materia medica as of no use.—*Med. Klinic*, 1909, p. 381.

EFFECT OF LIQUID-AIR BATHS ON CERTAIN SUBSTANCES

Strzyzowski has instituted experiments on the changes wrought by a bath of liquid air in the color, odor and other qualities of certain chemicals, drugs and some organisms, with the following results. We know that all the molecular motions of physicochemical processes as well as those of life are caused by external pressure (especially by heat) and with which they are intimately related. The modifications mentioned run parallel with the decrease of temperature until they reach a minimum, i. e., until the phenomena disappear entirely when a temperature is reached (viz. -273°C. or -459.4°F.) at which there is neither motion nor oscillation and where absolute molecular quiet is said to reign. It was only when the present great progress was made in the condensation of gases that it became possible to test the qualities of objects at the lowest possible temperature.

The author tested a large series of pharmaceutically important substances with reference to their changes when treated with liquid air. Into a dry test-tube he put a portion of the substances to be tested and subjected the tube for five minutes to the influence of liquid air. On removing, there was formed a nontransparent deposit of ice from condensed water-vapor, which became

transparent on immersion of the tube for a second in previously chilled absolute alcohol.

At a temperature of -190°C. (-310°F.) the molecular movements are reduced to such an extent that the volatilization of odoriferous bodies is so slight that our olfactory nerves, ordinarily so acute for such articles as, e. g., oil of mustard or iodoform, no longer perceive them. Musk, creosote and guaiacol do not completely lose their odor at -190°C. (-310°F.), still lower temperatures being needed for these. The question why colored substances thus exposed to great cold, especially why red and yellow colors always become lighter rather than darker, the author could not answer.

The author also makes some remarks on the effects of intense cold on bacteria, ferments, blastomycetes and arthropodes. The least effects are to be observed upon ferments and bacteria, the former not being affected by a temperature of -190°C.

CONCERNING ULTRA MICROORGANISMS

Bon H. Molisch, in *The Botanische Zeitung* (1908, No. 66), says that it is a question of interest in natural science whether there are living beings which cannot be microscopically detected because of their extreme minuteness. The limit of microscopic perception amounts, practically, to one-fourth of a micron—a micron being the one-thousandth of one milligram. By oblique illumination, immersion of the lens in monobromonaphtha'ene, and under violet light the extreme dissolving limit is 0.12 of a micron. But the ultramicroscope makes particles visible to the limit of 4 microns.

Daily, for months, the author scrutinized, both microscopically and ultramicroscopically, preparations of various kinds: river, swamp and pool water, various animal and plant infusions, water carrying decomposing algae and cuts of fresh plants, but always with the same result. He failed to observe the slightest indication of moving ultramicroorganisms, even of such as were of only he thickness of ultramicroscopic limits. The following interesting reflections are a summary of those which the author makes on the basis of his observations.

Up to this time not a single organism could be demonstrated with certainty as being of an ultramicroscopic nature. While the possibility is not to be disputed that there may be ultramicroscopic living beings, yet future researches will show that if such beings exist at all they are relatively very rare.

Those microbes which can be so easily and plainly perceived in the ultramicroscope on account of the contrast between their brightness and the dark background may by closer observation be seen with ordinary high-power microscopes and with common illumination, so that these microbes are not ultramicroscopic. With this agrees the fact that all known bacteria which form colonies on solid nutritive media are always resolvable microscopically, but colonies of ultramicroscopic bacteria have hitherto not been observed.

First of all one might possibly think of ultramicroscopic organisms as disease provokers in such conditions as mouth-and-hoof disease, or in spotty disease of the tobacco plant, and in some certain other diseases. But according to other investigators the question in these and in analogous cases is not at all about any living pathogenic objects but about some metabolic diseases, i. e., about a virus which may be the cause of forming autocatalytically another virus.

In agreement with the ultramicroscopic findings of the author are also Errera's theoretically elaborated conclusions according to which any existing ultramicrobes cannot be much smaller than the smallest known living beings.

COLCHICINE IN GOUT

In acute attacks of gout Dr. Becker gives a pill containing colchicine, one milligram (gr. 1-67), three times a day; in violent attacks, four times a day. This dose may be given every five hours, i. e., 9 pills in 24 hours.—*Wien. Med. Wochenschrift*, 1908, No. 29.

Why He Left the County Society

This paper, which is another contribution to our "incog" series, was written by a New England physician. He presents the case against the county society. We want a champion for the other side. Who will volunteer?

A SHORT time ago I resigned my membership in my County Medical Society. I sent the clerk a polite note, stating my wish, and thought the matter ended. But the clerk read my letter at the next meeting and the members refused to act without making inquiry, so the matter was referred to a councillor, who wrote to me to find out why I had done so unheard-of a thing. I spent some time formulating my hitherto indefinite reasons, stated them in the letter I sent to the councillor, and at the next meeting they will have to accept my resignation as my mind is made up. I can't decide whether the conditions which caused my resignation are peculiar to the locality or simply to myself and my odd way of looking at things, and so I am going to refer the question to the profession at large for solution.

"What" the Writer Is

By way of introduction I'll say that I am a regular physician and have been in general practice nearly six years. I am examiner for five insurance companies and have held the positions of Health Officer and Coroner's Deputy for my town. I held a college degree before studying medicine, have had hospital experience, and so far as I know my professional ability seems to be not less than that of the average doctor.

However peculiar my views may be on the subject at hand I certainly am not narrow-minded in the ordinary sense of the word and I entertain very catholic opinions in everything related to my profession. I have Schüssler's work on my shelf as well as fine homeopathic books and subscribe to two standard medical journals. If there ever was a man who was righteously dissatisfied with his own professional ability, I am he. And last, but not least, I strive to live at peace with all men, especially neighboring practicians of medicine. But I resigned from our county medical society simply because I could think of no good reason why I should stay in.

Confrères on both sides of me are so anxious for business that one of them will ride three miles for $1.25 and another four miles for $1.00 to see patients who are both willing and able to pay respectable fees.

"Rate-Cutting" Is Winked at by the Society

I told one of the councillors about the condition of affairs, but the only comfort I got was the following information: "You find rate-cutting everywhere and you must get used to it. When you get older you won't notice such little annoyances. The doctor who cuts rates cuts his own throat." (He evidently didn't stop to think that he cut mine also at the same time.) But, at

any rate, he gave me to understand that the society would take no official notice of such infringements of its rules.

Reason No. 1 for resigning: I have no respect for any organization which doesn't think it worth while at least to try to enforce its own rules.

Our society of late has pretended to wage a terrible warfare against contract-work for lodges, etc., etc. One enterprising member wouldn't give in and practically told the society to go to thunder. After a year and a half of negotiations, hostile and otherwise, he finally gave in and promised to be good. But it looks as though he had been bought up, because at the next meeting he was elected president of this county society! ! !

It is very noticeable that when the doctors who run our medical societies—the ones who live in the larger towns and cities—are troubled by irregularities of brother practicians they manage to protect themselves somehow. But if a doctor from the rural districts enters a complaint he is considered a "kicker," or it is dismissed as a case of "grouch," and they say, "Dr. A. is sore on Dr. B."—well, do you blame him, sometimes? Lo, in my own case, contract-work is engaged in by my local competitor, but as he lives in the country and doesn't bother any of the "authorities" of the local society he can do as he pleases. But I forgot—perhaps he is aiming at the president's chair!

Reason No. 2: Discrimination and partiality is shown in the feeble efforts to enforce discipline.

How the Social Amenities Are NOT Cultivated

As soon as I moved to my present location I put on my best clothes, had a clean shave, and started in right by calling on my local competitor, hoping thereby to establish an armed neutrality at least. I didn't stay long. I didn't have any overcoat with me and the atmosphere of my confrère's office grew decidedly chilly the moment I entered. The call was never returned. Instead, I have been the object of a torrent of abuse and vile epithet ever since I came to town. He and his wife have refused to attend social functions where my wife and I were present.

During my four years of residence in this section there have been in the same or con tiguous towns eleven physicians of my own school. All but one are society members. One of these eleven is a woman who does no general practice but runs a sanatorium. During these four years I have had five social callers from among these eleven confrères. One doctor called when I was out. I returned the visit, and then matters stopped. The woman M. D. has been very friendly to myself and family. The youngest and newest member of the society returned a call I made on him, while the nonmember and I have exchanged calls frequently. One doctor from a neighboring city who was in town on a pleasure trip one day stopped at the front door to say "How do you do." This is the extent of my social life with my fellow practicians during the past four years. Four calls I have made remain unanswered. And yet they do say that society membership promotes social life among members of the fraternity! ! !

Reason No. 3: It doesn't.

Consultations with Quacks—by the "Ethical"

Now about consultations. It is generally understood that except in emergencies and exceptional circumstances a doctor will call a regular member of his own school in consultation when one is considered necessary. But around here it is the custom with one or two society members to call in a certain famous "natural bone-setter," who has no degree, no society membership, no education, in fact, except what he "inherited" from his father who was also a "natural bone-setter," to assist them with their fractures. They do this to satisfy the whims of their patients.

We have here also an infamous ignorant doctor with a court record of whisky selling and abortion business, etc., etc. When one of his dirty-work patients gets very sick he can always find society members in good standing to help him out of his scrape and shield him from his just dues. The public understands that all this is irregular and con-

trary to the rules and regulations, and they don't approve of it either. And yet no measures are taken by the Society to put an end to these evils. The councillor says, "You won't mind such things when you get older."

Reason No. 4: The county society upholds the doctrine of "dollars first, medical ethics and morals afterward."

Now, I have often seen it in print that a doctor should attend the meetings of his medical society in order to keep up with the times and so prevent himself from becoming rusty. Some time ago the "authorities" of our society announced a symposium on "Pneumonia" for our fall meeting. I attended, expecting great things. What did I get out of it—enough to pay me for my trouble? No.

A "Symposium" on Pneumonia

This is what happened. One member read a paper on the pathology of pneumonia which was simply a hacked and garbled digest of Osler's "Practice" on this subject. The conclusion of his remarks was: "It is a self-limited disease and cannot be aborted or cut short by any known treatment." And then we had the usual round of information as to the wonderful benefits derived from the use of sweet spirits of niter, strychnine, spirits of Mindererus, syrup of squills, senega, carbonate of ammonia, morphine, antiphlogistics of various descriptions, and whisky—don't forget the whisky. By the time the discussion was over with I had almost begun to believe that the Denver Chemical Co. plus King Barleycorn was the only combination of phenomena that guarded the human race from instant annihilation.

The man sitting next to me was an exceedingly capable man, a practician of twenty-five years' experience, with a good reputation both as a physician and surgeon in a neighboring city. I leaned over and asked him if he had ever used bryonia for pleuritic pains in place of morphine, but he said he'd never heard of the drug. Another of the leaders in the discussion, a man of fifteen years' experience, had told me previously that he had never given a dose of aconite in his life. A case during his first year of practice had been a child accidentally poisoned with the drug. This scared him so that he never had dared to use aconite medicinally. I wonder sometimes what would have been the result on his therapeutics if the child had taken morphine or strychnine instead of aconite! During the whole discussion aconite and veratrum viride were not so much as mentioned.

I piped up and asked if anybody present thought that pneumonia could be aborted at any stage, but nobody took the question seriously enough to make any comments whatever. I was the youngest member present and didn't see anything to be gained by airing my heretical views, and so I quit talking.

In closing, one venerable member mentioned the power of prayer as a valuable therapeutic agent. And I must admit that if the remarks made that day are any true indication of the amount of therapeutic skill possessed by the speakers, earnest prayer would certainly be a rational and very necessary adjunct to their treatment.

This meeting was a fair sample of all that I have attended. Thus was I kept from "getting rusty"!

Reason No. 5: From the standpoint of benefits received the meetings are not worth attending.

The Social Function—Viewed by a Non-Smoker

Then there is the social feature of medical meetings. Now, I don't deny that there is a social side to the meetings of our society, but it is impossible for me to partake of these joys. The medical profession ought to and does pretend to stand for the abolition of all habits and customs which science has proved to be deleterious to the health of human beings. Why is it then that doctors are unable to enjoy a social hour together except in a room reeking with the stink of burning tobacco? I do not smoke. As a result I have been obliged to leave the room where a "social hour" was in progress. I guess I am the only man in the society who

doesn't smoke, so what else is there for me to do?

Reason No. 6: I am shut out from enjoying the most of the social features of the medical society meetings. Membership in a county society is a necessity to membership in the State or National Society, and this latter seems to some doctors to be the *summum bonum* of existence. All this applies equally to the state meetings, even to the vile-smelling "smokers." Likewise with the national meetings of the A. M. A., I suppose, though I have never attended one. If a doctor is interested in some special line of work and has the time, money and inclination to attend a particular section and its "smoker" he would undoubtedly be repaid for his outlay in benefits received. But the suggestion that a man should join the Hallberg-Simmons Club simply to enjoy the sensation of "being part of a larger whole" is enough to make angels weep and hell resound with laughter. Read the "Appeal for a Square Deal."

Now, I am not writing this paper in order to show myself off as a smart "Aleck." What I have written has been in all seriousness. That our society is peculiarly bad I can't believe. That my way of looking at things is peculiar is highly probable. The question is, Do I underestimate the amount of good I might receive from our society? If I do not get any benefit from it, whose fault is it, mine or the society's?

To become an active member and attend all the meetings, etc., etc., costs about ten dollars a year. I believe I can use the money to better advantage. If any doctor can show me, either through the columns of this journal or privately, the proper solution to the problem he will be heartily thanked by a

NEW ENGLAND PILLSLINGER.

[Ah! Too often there's a fly in the ointment, and sometimes, as in our brother's case, a whole pot full! We all know that there are hundreds of medical societies of which this article might be considered a correct picture. Are you sure that this doctor isn't from your own county? Real sure? Think it over. The unfortunate part is that there is so very, very much of truth in this story, and that many of our professional brethren become disgruntled, dissatisfied and finally (too often) quit for exactly the same reasons that the writer did, though they might not be able to put the situation on paper quite so tellingly as he has.

Should a doctor leave the society which he feels is not doing its duty to its membership? I should say most emphatically, "No!" It is our duty to wake up, stir up and regenerate. The trouble really is that instead of taking hold and doing our duty we find it easier to slide out, meanwhile thinking, and possibly speaking, "cuss words." The real problem is: "What can we do to help make the society worth while?" What do you think?—ED.]

RATTLESNAKE POISON

We are pleased to learn that Dr. Thomas J. Mays of Philadelphia has been engaged in studying the clinical action of rattlesnake poison in epilepsy, and promises to contribute a paper on his research for our September or October number.

REMARKABLE DEFORMITY IN NEW-BORN BABE

It is not very often that I break into print, but I think I have something worthy of note, hence this effort.

On March 19 I was called to wait on Belle P. in her seventh confinement and delivered her at full term of a child which was minus arms and legs. The arms looked as if they had been amputated at the junction of the upper and middle third and there were no legs at all, not even the joints at the sockets. In all other respects the child was normal, weighing 9 pounds 14 1-2 ounces. It is doing well up to the present time and bids fair to live. The parents are both stout, well-formed people and none of the other children show any abnormality. I enclose a photograph taken when the child was about a month old.

I find on questioning the mother that at the time she was about one month pregnant her father had his hand injured on a circular saw at a chair factory. He lost one entire finger and part of another and she saw the

Dr. Allenbaugh with the little armless and legless babe which he helped into the world

stumps a few days after the accident while the doctor was dressing the hand. She thinks that is the cause.

I would like to ask if any of the brethren have had similar cases.

E. E. ALLENBAUGH.

Huff, Ind.

WAS THIS PNEUMONIA?

I have been reading THE AMERICAN JOURNAL OF CLINICAL MEDICINE nearly ever since I graduated, in 1903, and have been a close reader of its pages for the last two years. I feel that it has been a great help to me and has made me a much better physician than I should have been without it. I read with much interest the article on pneumonia in the last issue, and wish to add my little mite and report a case which I had a few weeks ago. I do not ask the readers of the journal to agree with me, but to make a diagnosis from the symptoms as I shall give them.

About 5 a. m., March 1, I was hurriedly called to see Mrs. H., aged 38, multipara, eight months pregnant. She gave a history of having retired that night feeling as well as usual. About 12 o'clock she was wakened with a violent chill followed shortly by a sharp lancinating pain in her left side. When I arrived she was sitting up in bed, getting her breath with much difficulty, having the customary expiratory grunt of pneumonia. She was suffering intensely and begged for morphine, which I refused.

I gave her six calomel and podophyllin tablets, one every half hour, followed, every two hours after, with a dram of epsom salt in hot water until the bowels had moved freely. I also gave her one granule of the dosimetric trinity in solution every half hour until I returned. At 5 p. m. I found that she had had several copious actions, green and very offensive. The temperature was 100°F., pulse 90°, full and soft, pain in her side much better. (I should have used bryonin for the pain in her side on my first visit but was out of the remedy.) I continued the dosimetric trinity every hour and gave her the sulphocarbolates in solution every two hours until next visit.

At 8 a. m., March 2, I returned and found she had rested well through the night. Temperature was 99°F., pulse 80, pain in the side almost entirely gone and she was breathing easily. I continued the dosimetric trinity and intestinal antiseptic every two hours during the day.

The next day I found her temperature and pulse normal and she begged to be allowed something more substantial to eat. The fourth day she was sitting up, feeling as well as she ever did.

Now I ask you and the readers of the journal, Was this a case of pneumonia?

J. H. C.

——, Virginia.

[We receive many reports of cases of this kind—cases having at the onset of the dis-

ease the characteristic signs and symptoms of croupous pneumonia and which improve so rapidly under the alkaloidal treatment that the doctor himself is often doubtful as to the accuracy of his diagnosis. Those of us who believe that by energetic, intelligent treatment at its incipiency pneumonia may be aborted or shortened in its course have little doubt as to what these cases are. The man who has had experiences like this again and again, who no longer has the same and often fatal cases that he had before he adopted the alkaloidal way of handling them, ceases to doubt. He *knows*. Read the report of Dr. McGarvey, which follows, and you will understand why.—ED.]

PNEUMONIA CAN BE ABORTED

I had made the statement to a number of my colleagues on the staff of Mahoning Valley Hospital of this city that I had never lost but one patient from pneumonia and not a single one from cholera infantum during my twelve years of active practice. A case to the point: Monday evening I called to see J. G., age 20; suffered from severe chill. Sunday I found him tossing, delirious, temperature 105°F., pulse 136, respiration 50, coughing constantly and expectorating prune-juice sputum; lower lobe of left lung flat and crackling, râle over entire right lung; respiration murmur scarcely to be heard anywhere over left lung. Called ambulance and sent him to the hospital, where five of my colleagues saw him with me at 8 p. m.

The man was so delirious that the nurse had found it necessary to use the straight-jacket to keep him in bed at that time. Temperature had risen to 105.6°F., pulse 140, respiration 54. There was not one of my five consultants who would say that the man had any show for his life at all. All gave an unfavorable prognosis.

Then we began medication, first calomel and podophyllin, each 1-6 grain every one-half hour for six doses. The last dose was accompanied by 2 drams of a saline laxative, the latter repeated every two hours until bowels moved freely. In the meantime he was getting defervescent No. 1, a dosimetric dose every thirty minutes, to be administered until the pulse was below 100, then every hour. He was put on a strictly liquid diet, meat juice, egg, albumen and hot broth. (I believe patients with high temperature cannot digest plain milk, and I never use it except when peptonized; you might as well give them cheese.) Then 10 grains of the combined sulphocarbolates was ordered four times a day.

In twenty-four hours this man's temperature was reduced to 101°F., respiration 28, and pulse 96, and he was perfectly conscious. He wanted his clothes yesterday. I was going into the ward to dress another patient; just as I reached the door I met him on the way to the toilet-room. I was so surprised I nearly dropped. This was five days after admission.

Thank God there is a specific treatment for pneumonia. I have demonstrated this to my own satisfaction so many times, I wish I could tell it so loud and with a force that would convince every practising physician that such is the case indeed, our socalled "authorities" to the contrary notwithstanding.

Here's to you, Dr. Abbott, and to the thousands of the CLINIC "family." Long may you and your journal live and prosper and keep on telling the truth in regard to therapeutics.

H. MCGARVEY.

Youngstown, Ohio.

PNEUMONIA CAN BE ABORTED

I was called to see a Mrs. R., age 70 years, good physique. The first day on entering the room I found her in bed with a temperature of 104°F., marked dyspnea and respiration quite shallow and rapid. She had also a short, dry cough; the coughing pained her very much. The tongue was heavily furred, there was loss of appetite, bowels constipated; there was an anxious look on the face; limbs were very painful, as was also the stomach; she had chills and sweats; there was dulness of the lower lobe of the right lung, auscultation revealing fine crepitant râles at the end of inspiration, and

bronchial breathing was also noticed. The same night I was called in again, to find my patient in convulsions and delirium, with an increase of more than one degree in temperature.

On my first visit I gave her a combination of aloin, belladonna and strychnine with cascara for the bowels, which in time moved freely. After that I gave full doses of a saline laxative each morning. For the fever I gave aconitine, digitalin and bryonin in water, one dose, dosimetric, every thirty minutes until fever fell and sweating began, then ordered to lengthen the intervals so long as there was no fever.

Now in addition to the foregoing I gave an embrocation of egg, vinegar, turpentine and extract of arnica. On the third day fever and all of the worst symptoms were gone. After the applications of the liniment a jacket of absorbent cotton was worn by the patient.

No food was permitted except drinks of black-currant paste water and beef tea. After pain and fever had gone I kept the patient on Horlick's malted milk, lime water, chicken broth, toast and yolk of egg. All through the case she received that old favorite heart tonic which we call a "shotgun," namely: digitalin, strophanthin, strychnine, sparteine, glonoin and cactin. On the ninth day the patient was up, only a slight cough remaining.

E. MATHER.

Detroit, Mich.

AN ILLINOIS DOCTOR'S OUTFIT

In the May issue of CLINICAL MEDICINE you ask for descriptions of driving outfits. The needs of physicians are necessarily different in various localities and as I am a country practician I will write from that standpoint. I think that a physician should have several different rigs and always buy the best, as cheap rigs are the most expensive in the long run. I keep four rigs, viz., a Troy surrey, a Staver cut-under runabout, a John Deere heavy Concord driving buggy and a Delker phaeton; and I would like to have a couple of automobiles and a flying-machine! However, an automobile is not a money-maker for the country practician.

"Spot" and "Dot" owned by Dr. E. W. Brooks, Beecher City, Ill.

The best driving light is an acetylene light like those used on automobiles, as it throws the light far enough ahead so you can see where you are going, which no oil lamp will do.

A country practician needs five good-sized rooms, viz., a waiting room, consultation room, private library room, drug room and operating room. I do not believe in writing prescriptions for drugstores or keeping drugs or instruments out in the waiting room.

I think it a good rule never to tell our patients what we are giving them as that is none of their business, and what they are looking for is results. Yet I believe in telling what each medicine is for. I do not believe in prescribing patent medicines, as some doctors do, especially those who frequent drugstores. Any doctor who cannot make a better prescription after examining a patient is not a good physician.

The doctor should keep everything in his office neat and clean and from time to time

add some new equipment, which shows people that he is progressive.

Try to educate the public right and they will soon begin to see things as you do.

Keep prices up and be sure you are skilful enough to earn the money. If a bill is $80 don't cut it to $75, as that would show that you had charged $5 too much; and, besides, your supply houses do not knock off odd dollars or cents in selling to you.

Enclosed find photo of my driving teams. They are not noted for their speed but have great endurance. E. W. BROOKS.

Beecher City, Ill.

DOCTORS' DRIVING OUTFIT: HORSES AND AUTO

I have it. It's composed of a Holsman high-wheeled auto, two Hambletonian horses, buggy and cart. Now the Holsman runs until it gets stuck, then the horses pull it home and then run till they are run down and the Holsman again runs until it gets stuck. You see that it is one continual round of pleasure and variety. You yell "Giddap" to the auto and twist the lines to steer and make your horses go. Try hard to "skeer" every blamed horse in the country with your horses and get clean into the off fence with your auto to avoid being "skeered" yourself when you meet another one.

Laying all jokes aside, when a man can afford to, this makes the ideal combination. There is no doubt that the expense of keeping horses enough to do all your work is in excess of an auto, especially the type I use. On the other hand, there are times of deep mud and snow when you find it better for horses. Again, there is no machine which does not need some repair occasionally, and then your horses can be used. The team is always kept in good trim and the auto kept in good repair.

In regard to driving lamps, I find two bicycle acetylene lamps fastened to the buggy top gives better satisfaction than anything else, and of course the large acetylene headlight on the automobile.

A. E. COLLYER.

Elgin, Neb.

The beautiful driving "nag" of Dr. G. W. Dille, Cooperstown, Pa.

HE USES A MAXWELL RUNABOUT

October 30, 1908, I purchased a 14-H.-P. 2-cylinder Maxwell runabout, which I have constantly used, except for a few days when the mud was so deep that it was impossible. During that time I have probably averaged about 750 miles per month.

This being the first machine I ever handled, I had considerable trouble during the first three months, but now I see that it was usually my fault and not that of the car. I find the expense of running slightly more than that of horse and buggy, and care, about equal. I am now using tires that were on the car when it was purchased. Two have been retreaded, but all will have to be replaced soon. I am well pleased and should not think of using a horse and buggy again.

In this locality the roads are nearly always good; consequently country trips can be made in a very short time, consuming in fact very little more than calls in town, at the same time affording pleasure instead of ennui. I am, moreover, satisfied that possessing this car has resulted to me in increased practice.

To any doctor thinking of purchasing, I would advise him to buy a two- or four-cylinder, not less than 12-H. P.; a light car, single tire. Expense corresponds to the weight of the machine. Above all things, care for and run your own car and make all repairs possible, as I find that many garages are hold-ups.

O. A. GRANTHAM.

Johnstown, Colo.

HE DRIVES A "COZY CAB"

I have been in the practice of medicine since 1896 and have tried all means of equipments—buggies, carts, horseback—but the best driving outfit I have yet found is the cozy cab made by Messrs. Fouts & Hunter of Terre Haute, Ind. It cost me one hundred dollars, and I would not want to do without it for five times what it cost me. Not that I am advertising this firm's vehicle, but to me it is "the best out," and they do not know I am writing this to your most valuable journal. I think that if we have a good thing we should pass it around.

The only fault I can find with this outfit is the pair of Dietz's driving lamps going with the cab. I would not give twenty-five cents a dozen for the lamps on a stormy night, for they will blow out driving against a stiff wind; otherwise they are all right. The trouble with the lamp is, the burner carries a small wick, while it should be a No. 2 wick. It is only a 00, less than one-half inch. The lamps are in the right place; they throw light the distance of 100 feet. I have tried lanterns on the dash-board, rear axle, under buggy box, but no position gives me the satisfaction as where they are on the Fouts & Hunter buggy. This buggy is not much heavier than an ordinary one. I drive a horse in summer time and in winter, and I cannot see that it pulls any harder than the ordinary vehicle.

R. E. EAGAN.

Springhill, Kan.

[This is a good, practical paper and right to the point, exactly what country doctor's want to know. What is the experience of others as to carriage lamps ?—ED.]

Dr. Homer M. Steifer of Coutelenc, Cal., behind his roadster, "Daisy Patch"

THIS MAN USES THE MOTORCYCLE

I see in the April number of CLINICAL MEDICINE that you intend giving in the June number a discussion of the doctor's driving outfit. I want to give my favorable experience with the motorcycle. I have used one for several years and can get much more service with less trouble and expense than from any other means.

A first-class motorcycle can be purchased for $175 to $250. The bill for repairs is slight, as the machines are very durable and but little liable to get out of working order. One gallon of gasolin will carry the machine and rider a hundred miles, as fast as the character of the road and the law will permit.

I usually make 18 to 25 miles per hour—two or three times as fast as a horse can travel, especially during the hot months. Hills, to a motorcycle, are the same as the

level—it will take you up as fast as you care to ride and much faster than anything else except it be a high-power automobile. If the machine is kept at the office you can be several miles in the country before horse and buggy can be got ready.

With spring forks or frame, large 2 1-2 inch tires, 11x14 inch saddle with compound springs, the motorcycle rides very comfortably, and long trips can be made with little fatigue. With a suitable acetylene gas-lamp night trips can be made as well as day. The motorcycle can be ridden over roads not suitable for automobile as a single track or path is all that it needs.

A. M. CURL.

Quincy, Ohio.

A DOCTOR'S MOTOR CARRIAGE

I want to say a good word for the high-wheel motor carriage as the successor to the horse. I have used mine since last September and it seems to improve as it gets older. It weighs about 1600 pounds, is water-cooled and has two cylinders. It ran without any non-skidding device on the slippery asphalt streets during last winter when all the pneumatic-tire cars were using chains. It is needless to say that it has solid rubber tires on the high wheels (40 inch front, 44 inch rear wheels). I do not know what tire trouble means and am enabled to make my calls all day long at the satisfactory rate of 15 or 16 miles an hour. It is claimed that the car will run up to 30 miles an hour, but half that is fast enough for me as I bought it to succeed my horses in my practice and not for touring.

Whenever the roads are macadamized or streets paved with brick or asphalt, the high-wheeled car with solid tires rides as smoothly as any pneumatic-tire car, but for use exclusively over Belgian block pavement the pneumatic tire is to be preferred. These are, however, mostly confined to the business streets of our larger towns and cities and can usually be avoided.

Over every other kind of street pavement the smaller wheels with pneumatic tires fit into every unevenness in the roads and jolt the passengers while the large wheels with solid tires pass over these defect without nearly so much jarring.

For the doctor who wants a machine to take the place of his horse and who wishes to avoid the temptations of speeding and of touring let me recommend the high-wheel car.

The name of my car is the Reliable-Dayton.

T. H. CARMICHAEL.

Mt. Airy, Philadelphia, Pa.

THE SADDLE-HORSE AND A MAN WHO RIDES ONE

You call upon the doctors to tell you of their rigs, autos, or other riding outfits, and I am so conceited as to think it means me, for one.

Well, first let me say we have many mountains and hills to contend with, most of the time without anything the city fellows would call roads, and I guess my own county is a fair sample of some dozen or two in Tennessee, Virginia or Kentucky. I am on the corner of these three states and it is no unusual day's work to answer calls in all three of them. We have fair railroad facilities and some few miles of road on which I could use a buggy or even an auto, but the most of our work in this country must of necessity be done on horseback. That has made most of our country doctors good judges of saddle-horses, for if a man must make from fifteen to fifty miles a day, or, say, a thousand miles in a month on horseback, as I have done for several months in the last five years, he will naturally want something that can go, and go at any easy gait.

I am riding now a "Madison-Squirrel," fifteen and one-half hands high and weighing one thousand pounds. His gait is "a running walk," good for six miles an hour on passable roads or four miles through the woods. He is six years old, coal-black and worth three hundred dollars, and with good care will last four or five years before he gets too stiff to trust on our mountain trails. I carry a large case filled with active-principle

remedies, in a carrying case made of harness leather to carry the medicine case on end with a flap to keep out the rain, and a harness-snap on the top of the under side to snap in the rings that are on the rear housings of the saddle. I planned it myself, and it cost me two dollars. When there is some surgical or obstetrical work before me I put the No. 8 in one side of a large pair of saddle-bags (like the pioneer preacher used to carry) and my instruments and dressings in the other side, "to balance," and mount and "go my way rejoicing.'

I do all my own surgery and some for a few of my colleagues. I only know of a very few usual operations in general or special surgery that I haven't done, and some of them under very discouraging conditions, yet I am proud of my record. In spite of my disadvantages I have always made more money than I spent, and when I hear the complaints of the city boys I am made to feel that our hard, lonesome life has some good points in its favor after all.

H. C. CHANCE.

Cumberland Gap, Tenn.

[It certainly has! I believe that even most of the city "boys" will admit that in spite of the hardships of the country doctor's life, in the majority of instances he has more to show for it, in the way of personal satisfaction, thankful hearts, joy in living and the "saving" for a rainy day than has the town man.—ED.]

FUNCTIONS OF THE TONSILS AND THE APPENDIX

Our friend, Dr. E. Burd of Lisbon, Iowa, asks the "family" to give their experience with regard to the results to the patient following the removal of the tonsils and appendix. The doctor wants to know of any unpleasant sequelæ following this operation which can be primarily attributed to the loss of other functions. The textbooks are entirely silent upon this question.

We agree with Dr. Burd that this is something that ought to be discussed and we shall be very glad to have our readers give their experience.

DIRE DISASTER LURKS IN BUTTERMILK BOOZE

We would be recreant in our duties to our readers if we failed to point out the dangers of the various new remedies that have been recommended from time to time in these columns. One of the most promising of the recent additions to our materia medica is the bacillus bulgaricus, used for the production of a buttermilk which is said to be not only delicious to the palate but extremely efficacious as an intestinal antiseptic and (according to Metchnikoff) a true *elixir longæ vitæ*.

But even buttermilk, apparently, has its dangers. Our excellent friend, Dr. Fremont E. Wood, sends us a clipping from the Bisbee (Arizona) *Daily Review*, which newspaper is celebrated through all the Southwest for its own peculiar (and mellowing) brand of veracity. The item reads as follows:

BUTTERMILK PIG SUDDENLY EXPLODES

EFFORT TO FATTEN PORKER ON WHITE FLUID PRODUCES WIERD RESULTS

CANANEA, April 17.—A story somewhat on the order of the *Mexican Herald's* recent nature faking is related as a fact by Keys, the local dairyman. He claims that a few weeks ago he placed a large porker in a pen to fatten near his place, using only buttermilk as the diet. The Mexican helpers about the dairy admonished him that he would never succeed in the undertaking unless he added some other kind of food. When questioned as to the reason they would shrug their shoulders and answer with a deprecating laugh. None of them, however, would feed the luckless pig, and his wants were served by the dairyman's hands alone. The hog appeared to be doing remarkably well until a few mornings ago. An extra-large bucketful had just been poured into the trough and all hands were seated at the breakfast table when an explosion occurred similar to a summer thunder clap, which jarred the windows and stopped the early meal. Rushing out to the pig-sty the excited owner found some hoofs, a bone and scattered hair where a valuable hog had stood a few moments before. All of which goes to show that buttermilk is more valuable as a freckle remover than it is for fattening pigs.

At the suggestion of Dr. Wood we have "rendered" and served the buttermilk pig as a horrible example to our readers. But for the comfort of those who love buttermilk,

a la Massol, we would suggest that there is no special danger unless the person using it makes a hog of himself.

The doctor suggests also that "up in the States, where pork is cheap, it might be appropriate to touch off a few pigs about the 4th of July." It is evident that the doctor has'nt been in the States lately or he would appreciate the danger of elevating this commodity in any such abrupt fashion. It's high enough already. Lynchings have not been entirely abolished yet.

DOLLARS FOR DOCTORS

In almost every issue of CLINICAL MEDICINE one runs across some article or letter written by a member of the "family" in which he differs from Doctor Abbott's ideas that alkaloidal practice means "dollars for doctors," basing such difference upon the plea that the man who practises alkaloidal medicine finds that his patients pass from his hands too quickly, and that individual bills are accordingly small.

Taken as a class, the average practicians are not business men, in the accepted sense of the word, and do not stop to realize that a patient cured in a short while is better satisfied than one who lingers for a long time in the clutches of disease and that the first-mentioned will express his pleasure, not only to the practician himself, but also to his lay friends and that by so doing is offering an assistance to the doctor in the making of future dollars.

As a rule when contracts are let for the consummation of a particular piece of work there is usually a bonus offered for every day less than the specified time given to complete the job, and it is a poor contractor who does not put forth every effort to gain the bonus by completing his work in less than contract time, and the man who gets the bonus is usually the one to whom people look when in need of rapid work. The same is true of doctors. The physicians who bring their cases to a happy termination in the shortest length of time are the ones who get the major portion of the practice of the locality in which they work.

It is not the individual bill that brings the "dollars for doctors," but the aggregate bills which he gets on his books. A practician may have one large bill against John Jones, but that large bill may mean few or none among the rest of his neighbors, while if the bill of John Jones is relatively small, others will seek out this doctor, realizing that they will save money and get proper treatment, and in the long run the doctor has made dollars by not running up bis bills.

The practician who turns his cases out rapidly is not obliged to hunt for new ones, for they will come to him, as his patients become walking advertisements and of the sort that the most ethically inclined cannot find fault with.

Active-principle therapy offers the doctor an opportunity to bring his cases to an early termination in a way offered by no other system of medication. He has, in this system, an absolute knowledge of the exact quantity and the absolute purity of remedial agents at hand, and if these agents are "used to effect", this effect brings about results in a remarkably short time. Given in small dosage at frequent intervals, it is not long until the effect is seen and the practician is able to change his remedies to meet symptoms as they arise. It is an easy matter to educate the nurse or attendant to watch for symptoms and to meet them as they arise.

Active principles "used to effect" and the effect sustained, is usually followed by rapid improvement of the existing conditions and convalescence within a much shorter time than if the practician follows in the footsteps of the therapeutic nihilists or administers some hard and fast line of treatment laid down in the books or preached by the faculty.

The doctor who would make dollars should use every endeavor possible to get his patients off his hands at the earliest possible moment, for a satisfied patient who has been saved money will return and bring others with him; and if money is saved in the more important cases, the little ones will come to him and he will pick up many a dollar that would never be his otherwise, as the average layman takes care of himself in minor cases, especially when it is the habit

of the practicians of his locality to make their cases last as long as possible.

It is the little cases that make dollars for doctors and not the big ones. Such cases are of the sort which come to his office and are treated at very little, if any, expense and usually bring the "dollars" with them, and an office-practice of ten dollars a day is worth double that received for outside work.

The active-principle practician should educate his patrons to come to him at the least sign of disease, and in that way he will be able, frequently, to abort what may become something of a serious nature. He will find that incipient lung troubles may be stopped at the outset by a few doses of medicine, which if let run on, might become true pneumonias; and by aborting little symptoms the practician will soon gain a reputation, without effort on his part other than bringing about rapid cures, which will bring him the major portion of the practice of his neighborhood.

GEORGE L. SERVOSS.

Fairview, Nev.

SOME UNUSUAL USES OF THE ALKALOIDS

I have used the alkaloids, or active-principle medication, quite extensively in my practice for about eight years, and during this time, when in the face of some desperate case (or it might be better to say, one that had resisted the ordinary remedies or methods of treatment), I have left the beaten track of the recommendations laid down in the books and have used remedies not recommended by the "authorities" for such cases.

Caulophyllin.—Everyone of course knows, or at least should know, that this is the safest and in most cases the best remedy that we have to prevent a threatened abortion. I have tested it for this purpose and have rarely found it to fail in cases where there was a prospect for any remedy to succeed.

There is another class of cases, however, to which I have seen no reference made, in which I have used caulophyllin, in the form of the standard dosimetric granules, with most excellent results. I refer to *incontinence of urine* and *irritability of the bladder.* This can probably be best illustrated by a brief report of a few cases.

Patient, a man of about 35. Many years ago he contracted gonorrhea which was followed by stricture. For a number of years he had suffered from more or less cystitis and inability to retain the urine for more than a very short time. From his statements, there has also been a strong hemorrhagic tendency, it being impossible to use an instrument of any kind without setting up severe hemorrhage. On January 17 I saw him the first time and found him suffering from a quite severe attack of cystitis attended by very frequent and painful micturition.

The bowels were first cleared by calomel and a saline laxative; then every hour a granule containing strychnine arsenate, cicutine hydrobromide, amorphous hyoscyamine, and digitalin, reinforced by enough hyoscyamine to make the dose gr. 1-250; also about 1-12 grain of morphine with each dose for a few doses until pain was relieved. This treatment soon relieved the more painful symptoms and the frequency and pain of micturition were also somewhat mitigated.

About March 1 the patient was troubled with a constant dribbling of urine, so that his clothing was wet clear through in the evening when he got through with his day's work. As he had been taking the diuretic granule above mentioned together with arbutin, gr. 1, and full doses of fluid extract of corn-silk several times a day for about a month, I saw that something of a different nature would have to be given to relieve his trouble. Accordingly I gave him a supply of caulophyllin in 1-6-grain doses, directing him to take one every hour until improved, and then at less- requent intervals. Inside of twenty-four hours the dribbling had ceased and since that time he has been able to retain the urine for full two hours.

In another case, that of a man of 72 with enlarged prostate, cystitis and severe pain in the bladder, the caulophyllin given in standard dosimetric doses, one each hour, did more good than anything else tried. I have used it in a number of other milder

cases with similar good results. Whether it acts by reducing the irritability of the nerve-centers or their peripheral endings I am unable to say, but whatever may be the mode of its action, it certainly has a very beneficent effect in many cases.

Hydrastinine Hydrochloride.—During the last three years I have on several occasions treated a woman about 40 years old for a hemorrhage from the bowels. This hemorrhage comes on at irregular intervals and is very resistant to ordinary methods of treatment, but on every occasion has promptly yielded to hydrastinine hydrochloride, gr. 1-12 given every two hours until relief was afforded, which generally comes in about twelve hours, whereas under ordinary methods the attack would last for several days and cause great prostration before being brought under control.

Ergotin.—I have used ergotin as a circulation equalizer and to control certain conditions of the heart that no other remedies would reach. Several years ago I had a very bad case of chronic myocarditis or fatty degeneration of the heart. This was a man about 50 years of age who had been the rounds of the best physicians for several years and had taken many different kinds of treatment. In the summer of 1904 when he came under my care he was suffering severely. He had severe dyspnea, could not lie down in bed; considerable lividity of face; there was pronounced bradycardia, the pulse falling to 44, and that peculiar intermittency of the pulse that is found in cases of "heart-block."

I had used many different heart tonics and regulators; had one of our most prominent physicians see him in consultation and followed his suggestion as to treatment, but without any good result whatever. The man was getting worse all the time, and in desperation I decided to try ergotin in the case.

I began by giving 2 grains every two hours, and it was not long before the symptoms began to subside. Later on he was given three doses a day, and this was kept up most of the time for about two years, at which time he felt so well that he discontinued the treatment. He has been engaged in active outdoor work (running a dairy and delivering milk) and has remained well ever since. In properly selected cases I believe ergotin is the most reliable circulation equalizer that we have and should be used much oftener than it is.

Cactin.—While I cannot add anything new to what has been said of cactin, I desire to emphasize the fact that it often succeeds and gives excellent results where other and stronger heart tonics have failed. For relieving that irregularity and intermittency so often found in typhoid fever and other conditions of lowered vitality it is often superior to and succeeds where digitalis, strychnine and stronger heart tonics fail. Instead of exciting and increasing irritability cactin calms and soothes, and often a pulse that under the influence of digitalis, strychnine, nitroglycerin, *et id omne genus*, remains weak and irregular becomes stronger and regular in a short time after beginning its use.

This statement is not based on results obtained on healthy dogs and other animals but on sick people. If every physician in America would carefully read, digest and put into practice the excellent suggestions contained in Dr. Roland G. Curtin's article in the February number of CLINICAL MEDICINE, much good would be done.

E. STUVER.

Ft. Collins, Colo.

LOBELIA USED HYPODERMICALLY IN PNEUMONIA

In the April number of THE AMERICAN JOURNAL OF CLINICAL MEDICINE (page 453) is an article on "Lobelia in Diphtheria," by Dr. Jentzsch. I saw his article referred to in *Ellingwood's Therapeutist*, speaking of the use of lobelia in pneumonia. As I had a very serious case of pneumonia in a woman 47 years of age and in a very poor and weakened condition, lasting for fifteen days with no apparent turn for the better, I decided to try the lobelia, 20 drops hypodermically every four hours.

The result was almost marvelous, to say the least. Within forty-eight hours cough-

ing began, with a slight loosening of the exudate, relief of the dreaded dyspnea, and lowering of the temperature and pulse-rate. The patient is convalescing nicely, and all the credit on my part has been given to lobelia.

I could enumerate many of the patient's symptoms, but the point I make is the long-needed effect and result of a remedy to hasten resolution in which the plastic exudates seem to try to give the patient over to the grim hand of fate. I should be more than pleased to see other articles on this same subject. Of course I used other dosimetric treatment besides.

G. W. GALFORD.

Gibson City, Ill.

AN ASTHMA SUGGESTION

In the January number of this journal Dr. M. G. Price of Mosheim, Tenn., asked for a remedy for asthma. I will say that I have been successful in a few cases with citric acid in the form of lemonade, taken before meals, in connection with good tonics. This I accidentally learned while using the acid for malaria. I found that when my wife, who was the first patient to use it, would get better and paroxysms would be lighter, saying that she thought the lemonade was helping her. Then we determined to give it regularly and watch the effects more closely. This we did, and to our joy and surprise, she recovered entirely and now has no asthma at all. Prior to this I have had two of the best physicians I could get to treat her, but could not see any change for the better. The tonic I used was quinine, strychnine, phosphorus and damiana in proper dosage.

Now, Doctor, you may say, "Oh, she had no asthma, it was something else!" Well, she is not the only patient I have relieved or cured of this trouble. There are others! And I have been afraid to say a word for fear some fellow with his mind already made up would say funny things when he read about asthma being cured, things he wouldn't like to say in church. However, I am on the stump and I am not going to get off until I am knocked off, and you may say to Dr. Price that I don't want his mare—I have a very good one of my own and don't want any hing as pay for this advice. If it will cure or even give relief I shall feel amply paid. Try it, Doctor! Then let me know the result.

"Jack Spratt" belonging to Dr. Benjamin Edson, of Brooklyn, New York

B. F. DYKES.

Smith Creek, Fla.

HOW THE BIG WORDS LED THEM ASTRAY

I am an enthusiastic reader of your excellent journal; and, in reading this month's issue, I came on the article concerning the "Tandem Treatment," contributed by Dr. E. S. McKee of Cincinnati. His experience brought to my mind two "breaks" which I was fortunate enough to overhear.

The first episode occurred in the office of on older physician. A woman of perhaps forty-five years was searching for medical assistance for a certain affliction; and, in the course of the conversation, she expressed the astounding fact that she had "varicocele." Somewhat surprised, as one might well imagine, the doctor asked her just when, and how, she had come to the conclusion.

"Why, that's what my other doctor said," was the innocent reply. It proved to be a varicosity of the veins of one of her legs.

Another very estimable old lady, of perhaps seventy years, once called me to see her. She was a very nice, pleasant, clean-appearing little old woman; and you cannot wonder at my amazement when, after a few moments' conversation, she gravely assured me she once had suffered from "nervous prostitution." Just what form of this woeful malady she had been a victim of I hadn't the nerve—nor the control of my face—to ascertain.

Without doubt our profession is the recipient of more ludicrous verbal blunders than is any other occupation; this for the reason, probably, that the words and phrases with which we deal are so prone to lend themselves to these inaccuracies, and, the phraseology being, in so many cases, so similar, the possibilities for ludicrous mistakes are greatly increased.

Indirectly we, as physicians, are responsible for many of the errors. For, being accustomed to expressing ourselves in medical phraseology, and finding it rather difficult to find words in the language of the laity adequate for the occasion, we interject a mass of verbiage, which, while clear enough to us, is absolutely incomprehensible to them. Some of the most mirthful occasions I have ever been called upon to endure—with an inexpressive face—have been in watching the faces of a family as they listened to the gorgeous phraseology of some other member of our profession, as he explained a certain pathological condition to them. You've been there, you know what I mean, I see, by your miles; and it's no wonder our friends of the laity become confused, and, like the old lady, unconsciously put themselves into strange positions.

With Dr. McKee, I would very thoroughly enjoy reading of other mirth-provoking happenings and sayings.

E. W. GARDNER.

Hamilton, Ill.

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[We have some more clever stories, which came in response to Dr. Makee's suggestion. We shall use them, and others which may be sent us, next month.—ED.]

THE MEDICAL ERA'S GASTROINTESTINAL EDITIONS

During July and August, *The Medical Era* of St. Louis, Mo., will issue its annual series of issues devoted to gastrointestinal diseases. The July number will take up the usual bowel disorders of hot weather and the August will be devoted entirely to typhoid fever. These issues always attract considerable attention. The editor will forward copies to physicians applying for same.

NOVA SCOTIA—A SUMMER TRIP

One of the most restful and enjoyable places to go for vacation is Nova Scotia—220 miles from Boston by steamer, and you are in Yarmouth, wh'ch is a beautiful place. There you can find sailing, boating, fishing and shooting in season. Trains leave Yarmouth every day (except Sunday) for Digly Annapo'is—Land of Evangeline (Longfellow has immortalized it)—to Halifax by Dominion Atlantic Railway, South Shore by Halifax & Southwestern Railway, calling at Shelburne (Liverpool a beautiful place), fine fishing, boating, shooting, and best of all, fine people. (I know, as I was down there.) Lunenburg, Chester with its 365 islands, etc. Anyone can rest there, as climate is fine, cool breeze at night with beautiful weather by day. Board at the best hotel from $1.00 to $2.00 a day. Private houses about $5 to $7 a week. Plenty of milk, vegetables and fish in abundance. Can always, for small amount, hire boats and canoes to go fishing or sailing. Trout, cod, salmon, haddock, lobsters, etc., in abundance. Some of the scenery can't be surpassed.

Nova Scotia abounds in lakes from one to twelve miles long. All are well stocked with trout of from one-half to six pounds; salmon up to twenty-seven pounds. It is not necessary to carry an extensive outfit as fishing tackle, guns, etc., are easily procured there. From Boston to Nova Scotia, taking in Land

of Evangeline, Halifax and South Shore and return, the fare is about $16.00 or $18.00, with stop-over privileges as long as required. In the last twenty years I have gone to Nova Scotia about fifteen times, and I can say for the people of Nova Scotia that they are about the whitest class of people I have ever met. Thousands of Americans pass their vacations there every summer and I think the majority will endorse what I say.

Just a word in reference to the alkaloids. I use them every day and have for a number of years. I get results every time and have no fault to find. What more can anyone want? With best wishes,

JOHN D. TUPPER.

Westport, Mass.

SUGGESTIONS FOR THE TREATMENT OF BURNS OF ALL DEGREES

Probably no class of cases come under the care of the general practician oftener or with the regularity as do burns in their different degrees of severity and extent. Nor is there a class of cases which so taxes the patience and ingenuity of the physician, or a condition in which prompt and proper treatment may be of so much importance to the patient as in extensive burns, especially of the second and third degree, where limiting the scarring, disfiguration and contraction may mean so much.

It is of the utmost importance to institute early an efficient, comforting, cleanly, cheap and easily applied dressing, and also one which can be left in the hands of incompetents, as in many cases we are compelled to do, especially in the country.

Those who have had any experience with the old unguentum and oil dressings know how poorly they fulfill the above-mentioned conditions. There are many remedies on the market designed and recommended for the treatment of burns, but nearly all contain oils or ointments as their base and in addition irritating or toxic substances, which prevents their long-continued application. Most of them, also, become deteriorated and are thus unfit for use in cases where so much depends on the prevention or limitation of suppuration, because the greater the suppuration the greater will be the disfiguration, scarring and subsequent contraction of the tissues.

This treatment which I claim to be so simple and efficient (I can almost see some of the readers smile as they read this), is nothing more nor less than the continuous application of gauze saturated with normal saline solution, the evaporation being prevented by covering with oiled silk or rubber tissue.

The materials required are cheap (a very important item when the treatment lasts for months) and can be found in every home, rich or poor. The method of applying the dressing differs very little whether it is in a recent case or one of long standing and is as follows:

The burnt surface is exposed and irrigated with a tepid saturated boric-acid solution (or plain sterile water if the boric acid is not at hand); or better yet, it may be made slightly alkaline with sodium bicarbonate (baking soda) until the boric acid can be procured.

This is Dr. J. Dobson, of Riverton, Conn., an old friend of CLINICAL MEDICINE

If an oily dressing has already been applied, this is sopped or blotted up as clean as possible. But if this process causes too much pain, it may be omitted and the saline dressing applied directly to the oily surface, with the assurance that most of the grease will

come away with the first dressing. All loose and easily detached charred tissue and debris is picked off with sterile forceps.

Next, gauze (sterile if possible) is soaked in sterile normal salt solution, one dram of table-salt—NaCl—to one pint of boiled water. The saturated gauze is applied to the entire burned area, in sufficient thickness to retain the moisture until the next dressing. If sterile gauze is not at hand, cheesecloth, flour-sacking, or like material may be used until the proper kind can be obtained. Over the gauze is spread a layer of oiled silk or rubber tissue, to prevent the evaporation and consequent drying of the dressing. If the silk or tissue are lacking, the gauze may be frequently moistened until they are obtained. Over the silk or tissue may be laid a layer of cotton batting, the latter being held in place by bandages or a strip of cloth held together by pins. The dressings may be changed once or twice a day according to indications.

The advantages of this method of treatment may be summed up as follows:

1. Cheapness.
2. The material is always at hand.
3. It may be left in unskilled hands if occasion demands.
4. It is cleanly: after the gauze is removed there is no sticky oily mess left behind.
5. No foreign or irritating substance is being used, but a normal constituent of the body-fluids and in approximately in the same proportion or percentage.
6. The functions of the destroyed skin are replaced as nearly as it is possible to do so artificially, as: heat radiation and distribution somewhat controlled, as seen by the rapid fall in temperature; the denuded surface is protected from the air.
7. Drainage is complete; the debris and products of inflammation and degeneration are taken up by the gauze. This drainage and absorption does not occur when oily dressings are used, as they form a film over the injured surface, retarding the process of regeneration.
8. Moisture is supplied to the denuded area in the most acceptable form, in fact about the same as in the healthy cells.
9. A surprising and rapid reduction in temperature is accomplished. On the chart which I have before me is recorded a drop of 3.4 degrees (from 103.2° to 99.8°F.) in twelve hours from the first application of the saline dressing, and only twice did it rise as high as 101°F., and then for only a very short period. This patient's burn extended from the middle of the back almost to the knees on both legs, between them and on the inner and outer surfaces. She had been treated by the oil and ointment method for two weeks before being treated with the saline dressing.
10. The ease with which skin grafting can be done and its excellent results. The area on which the graft is to be placed is slightly irritated by rubbing with a piece of gauze.
11. The absence of all danger of absorption of toxic drugs.
12. The rarity of complications.
13. The assured ease and comfort of the patient. At first the dressings are liable to be somewhat painful, due to the exposure to the air, which of course can be lessened by the rapidity with which the dressing is done.
14. Less scarring and contraction.

The foregoing points show what I consider to be the main facts in favor of this method. I have risked going into detail for fear that otherwise it might be underestimated. I only wish that the reader could see the results of this simple treatment on some of the horrible cases of burns that have come under my care and observation. I am sure that he would be as favorably impressed as was I. In one case that I have in mind the area destroyed was at least fifty percent.

Now a remark or two and I will let my case go to the jury.

At first small and often repeated doses of morphine, the hyoscine-morphine combination, or codeine may be used to control the pain and restlessness until the action of the salt solution is fully under way. I assure you that they will not need to be used but a very short time.

Do not be alarmed at the appearance of the dressings in an extensive burn; the first

few times that they are changed they will probably be loaded with a foul-stinking discharge; but that is where you want it, the more there is on the gauze the less there is on the patient. Soon it will be noticed that areas of healthy granulating tissue are beginning to appear, and they will grow larger from day to day until you have a clean, healthy surface with the new skin creeping in from the edges. Sometimes there will be a dull-gray spot or so which seems more sluggish than the rest of the surface; these can be stimulated with a 4-percent solution of silver nitrate. The odor is likely to be terrific at first, but this can be overcome by suitable deodorants. I prefer wood-alcohol set about the room in shallow dishes (unless there is danger of fire from a stove or lamp).

My last word is, don't be afraid to use the salt-water method, no matter what the extent or degree of the burn may be: and don't stop until you have obtained your results—you *will get them.*

RANSOM W. LUCE.

Newaygo, Mich.

FOR THE VACATION—GO TO THE CANADIAN NORTHWEST

In the February number of CLINICAL MEDICINE I notice an article by E. M. Clough on taking a few weeks' outing in the woods. It is a fine article and contains safe advice. Your own query of where to go admits of only one answer—Northwest Canada! From August 23, when the wild-duck season opens, until November 15, when the deer season closes—or till spring, for that matter—there is game of every size, from prairie-chicken to gray wolf, moose or bear.

For light shooting, duck and geese afford the most sport. I am afraid most hunters do not realize what duck shooting means. Three of us last fall walked three miles and return and "packed" the ducks we killed (fifty-nine) in less than four hours. Killed the ducks during that time too.

However, really to partake of "woods" life, it would be necessary to drive by wagon, trail about fifty miles north of the Canadian Northern railway, taking along tents, cooking utensils, etc., and an Indian or half-breed guide, planning to be in camp by November 1 (opening of deer-season). One should take two guns—a 12-gauge shotgun for ducks, wild geese, etc., and a 0.203 repeating rifle for deer, moose, bear, coyote, wolf, etc., not omitting the possibility of getting a black fox who wears a coat worth from $250 to $750. One should also take along a rod and trawl, for there are lots of lakes in this country, full of jackfish and whitefish weighing as high as 16 pounds.

Altogether one can find plenty of game, plenty of exercise and plenty of pleasure; but this trip will mean to the eastern man (for Chicago is really "way east") many tired muscles and aching bones, swollen feet and wind-burned face. Nevertheless the new experience, not to mention the prodigious appetite (leave the vial of quassin, but bring all your macrotin), freely recompense.

Last, but not least, you will be seeing the developmental stage of the absolutely greatest country on earth. Nowhere else can be seen such soil, such a climate, such admixture of races as in Alberta. It is indeed the "granary," not of the Empire, but of the world.

Finally, Doctor, if you can spare a month in the fall, come to Canada to spend the time. You'll never be sorry.

R. W. HALLADAY.

Hurry, Alberta.

CLINICAL MEDICINE IDEAL

I have never expressed my opinion of THE AMERICAN JOURNAL OF CLINICAL MEDICINE, and this is due to the fact that it is my ideal and any remarks seem inadequate. Your therapeutic optimism maintains confidence and restores hope when seemingly all others create therapeutic uncertainty. Your motto always suggests "smile and push," and satisfactory results uniformly follow. Your spirit is commendable, your ideas are invaluable, your achievement is appreciated. I never read your journal that I do not receive renewed and additional stimulus. You know whereof

you speak and therefore you are emphatic and positive. And nothing else is commensurate with the requirements.

T. S. WASSON.

Ellensburg, Wash.

WHY NOT TAKE A TRIP ABROAD

While arranging for your summer vacation, why not consider taking a trip abroad? The International Medical Congress meets this year in Budapest, in August. Our friend, Dr. Charles Wood Fassett of St. Joseph, Missouri, is arranging to take a party of physicians abroad to attend the Congress. A low rate for the trip has been made, and every convenience provided for the comfort of the party. Look up his advertisement on page 48. Go by all means if you can spare the money and time. Really, the trip is not at all an expensive one.

A DELIGHTFUL SUMMER RESORT

Watch Hill, Rhode Island, is the most delightful spot in New England to spend the summer. It is free from mosquitoes, malaria and typhoid fever—just the place to send your patients who need a cool delightful climate for the summer. Children suffering from "summer complaint" do well here. Asthmatics are instantly relieved after reaching this spot.

The ideal location of Watch Hill for a summer resort, and the many attractions, boating, sailing, fishing, driving, automobiling, the 18-hole golf course, splendid tennis courts, still and surf bathing are so well known as to need no more than mere mention.

During the winter and spring months the Watch Hill House has been enlarged, renovated and refurnished. A new and up-to-date laundry has been installed. A number of new rooms with private baths have been added, also a sun parlor, or enclosed piazza, for the comfort of guests.

The new Watch Hill House occupies the finest position on an elevated peninsula. Raised above the surrounding buildings it commands a view of both ocean and sound, so that each room has an ocean view. From its spacious *porte cochere* can be seen the entire sweep of the neighboring islands, and promontories, bays and inlets. Long Island sound, the mouth of the Pawtucket river and the little Naragansett bay, and just to the west of the elevation on which the hotel stands the road dips down to the beautiful bathing beach. Col. A. E. Dick, of New York City, a host of international fame has leased the new Watch Hill House and will be pleased to entertain his many friends this summer.

TO THE EDITOR

The poem which we print below was sent us by Dr. Zochert with the following remarks:

"I send you another poem, which is unique—

"1. Because it is *not* for publication;

"2. Because I have not retained a copy;

"3. Because you need not read it if you don't want too—nor even acknowledge the receipt of it.

"Just place it carefully in your inside pocket, next to the heart, with the fond reflection that at least one poor versifier appreciates the sorrows of the editor who must read—and sometimes print—medical verse."

After that there certainly is nothing left for the "sorrowful editor" to do but to print the doctor's verse—without his permission.

TO THE EDITOR

I'll sing you a song of the Medical Muse,
A song that is tender and sweet;
Though she sometimes walks out in her wooden shoes
And gets tangled up in her feet.

And I'll twang my tune on the medical lyre,
In a sort of jingling chime;
Tho oft I confess it arouses my ire
When the dog-gasted words won't rhyme.

And often I find that the meter goes wrong,
With a sort of a squee-geed tilt,
Which breaks up the smoothness of my song
And deranges its lithesome lilt.

No, I'll sing me my song to the Editor,
The man who must read this stuff;
He may give you the glad hand instead of a roar
But I think he is running a bluff!

Oh, a kindly man is the Editor man,
With many a kindly ruse,
To keep smiling a smile—tho the smile be wan—
When he thinks of the Medical Muse.

He will patiently tell you, "The verse it is fine,"
When he knows that in truth it is rot;
So I take up my pencil to drop him this line,
Just to see whether he can get hot.

L. W. ZOCHERT.

Roselle, Ill.

[Not hot!—ED.]

"IF I KNEW YOU AND YOU KNEW ME"

In some of the letters that I have written to friends I have enclosed little slips on which the verse given below is printed. I do not know who is the author of the poem, though doubtless I ought to. I *do* know that it is good and that it exactly mirrors the feelings of my own heart toward the thousands who are readers of CLINICAL MEDICINE.

From the many kindly responses that this little poem has brought back I am printing one, which tells the story in verse. It follows the original poem.

If I knew you and you knew me—
If both of us could clearly see,
And with an inner sight divine
The meaning of your heart and mine,
I'm sure that we would differ less
And clasp our hands in friendliness:
Our thoughts would pleasantly agree
If I knew you and you knew me.

Following is the reply that came from my good friend, Dr. Sterman:

REPLY TO "IF I KNEW YOU AND YOU KNEW ME."

If you knew me and I knew you,
If each to each were tried and true;
Could we but see each other's eyes
We might find there some sweet surprise;
And seeing, know and feel the spell
That binds true human kind so well;
To clasp our hands and feel the touch
That means, when friend meets friend, so much;
Inspiring confidence anew
If you knew me and I knew you!

W. F. STERMAN.

Winterset, Ia.

JUDGE WAUGH

At the late convocation of the University of Pittsburg, Vice-President Sherman and Honorable William Waugh received the degree of LL. D. This was the seventieth anniversary of Judge Waugh's graduation from this institution, he being now 91 years of age. It will interest readers of CLINICAL MEDICINE to know that the Judge is the father of *our* Doctor Waugh.

LATER—Since this was put in type Judge Waugh has passed away, loved and honored by all who knew him.

NEURALGIA OF THE BRACHIAL PLEXUS

It is a well-known and well-established fact that neuralgias of any sort are often very obstinate and difficult to treat satisfactorily. They sometimes persistently resist our most energetic efforts until our patient is worn out and disgusted and tired of the whole business—the disease and the doctor as well. Sometimes it will clear up and quickly subside with but little if any treatment. This difference in persistence is due of course to the condition of the system.

Briefly stated, the causes of neuralgia are faulty elimination, together with an impoverished state of the system and overtaxation or exposure to the inclemencies of the weather. Any treatment, to be effective, must take these conditions into consideration. As stated above, however, the disease will sometimes persist indefinitely in spite of our most painstaking efforts.

The writer had an experience recently with a case of neuralgia of the brachial plexus—the musculospiral in particular—that was very trying to the patient and doctor no less. The patient was a woman in the climacteric stage who had for some weeks been acting in the capacity of nurse in confinement-cases. She had been out much at night and as a consequence was overtaxed and lithemic to a marked degree. I was called to attend her about 1 p. m., on January 29.

I found the patient suffering with intense pain in the left shoulder and arm. Eliminants and the milder sedatives gave but slight relief. Hot sedative applications and large doses (1-2 grain) of morphine hypodermically gave partial relief for a time, but the patient soon became so "dopy" that we discontinued that treatment. I then gave gelseminine, 1-125 grain every two or three hours as needed for the relief of pain. The

pain began to subside very soon, and in three or four days had entirely disappeared. A tonic course of treatment for a few weeks left her as good as new.

W. H. EWIN.

Portland, Oreg.

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[Dr. Ewin's case is suggestive. The more I use gelseminine the stronger becomes my conviction that it is the agent from which most of the values of morphine can be secured without any of the disadvantages. A radical difference between the two is that gelseminine relaxes the vascular tension and improves elimination, whereas morphine locks the secretions in the system, giving only temporary relief, but increasing the toxemia which underlies neuralgia, as a rule. I trust that others will put Dr. Ewin's suggestion to trial and let us hear the results of it.—ED.]

A CASE OF ERYSIPELAS

I am prompted to give my experience with a very virulent case of facial erysipelas. March 27 I was called to see Mr. B., age 76. History of cancer of right eye for six years; general health up to this time had been good for a man of his age. Four days previous he had noticed intense itching and a stinging pain at the inner corner of his right eye, from whence it rapidly spread over the entire face and head.

I found the head and face enormously swollen and dark-red, eyes closed and pus oozing from between the lids; pus was also running from the ears. Temperature 104.5°F.; pulse 110, full and bounding; tongue coated heavily, breath foul, bowels constipated. This was the fifth day of his illness, during which time he had steadily grown worse.

I prescribed calomel, 1-4 grain every hour up to ten doses, followed by a large dose of magnesium sulphate, calcium sulphide, 1-2 grain every two hours; echinacea, drs. 2; rhus tox., gtt. 16; veratrum tincture (Norwood's), gtt. 32; water, q. s. ad ozs. 2; to be given 1 dram every hour. I also ordered cloths saturated with boric-acid solution (saturated) on face and head, ears and eyes also to be washed with it. Next morning I found temperature 102°F., pulse 90, full and strong. The bowels had moved freely. and pain was not so severe. I reduced the veratrum to 1 drop to the dose.

I continued on the same line for four days, the patient gradually improving. At that time finding the temperature normal, I left off the veratrum and gave strychnine nitrate, 1-30 grain every four hours. Also left off the rhus tox. The patient continued to improve and is now convalescent.

F. S. DEEM.

Newark, Ind.

—

[While the treatment was successful, I cannot avoid the conviction that the prompt pushing of pilocarpine to the production of sweat would have given relief much more quickly. Especially if the bowels were first emptied and disinfected.—ED.]

ESPERANTO AND COST-MARKS

I sometimes wonder how I ever managed to practise medicine without your journal. It was tough. The only objection I have against it is the length of its name and the infrequence of its appearance.

You are always doing something for the doctor. Who would have thought that you would teach us Esperanto? How valuable it would be to the profession of medicine did they all know Esperanto! I have attended three international medical congresses and traveled extensively in four continents and I have often been where the knowledge of a hundred words in a language would have been worth at the lowest calculation a dollar a word. Think what great worth even a hundred international words would be if properly chosen and truly "*tutmond.*" Your lessons in Esperanto will be worth much to your readers, especially if chosen for the special wants of the physician. All the language needs is push and publicity. You can give both.

Cost-marks are not of as much use to medical men as to merchants but are of some use. It is well to be able to mark for

the private use of the office attendant or yourself the amount of a bill or for medicines rendered, or the amount permissible to reduce if demanded, etc. There are several such appropriate for the physician, but my brief studies in Esperanto have found another. It is *Kuracistoj.* For a cost-mark it is necessary to have ten letters in the word used, none of which are repeated. Nine letters will do by adding any additional letter to the end of the word for the figure o. *Kuracisto* means physician in Esperanto, one who treats or cures. J, pronounced *y* (*i*) in Esperanto, always means the plural. In the following table the figure is represented by the letter beneath it, using capitals for dollars and lower case for cents, if desired:

1	2	3	4	5	6	7	8	9	o
k	u	r	a	c	i	s	t	o	j
h	y	p	o	c	r	a	t	e	s
h	y	p	o	d	e	r	m	i	c
p	h	a	r	m	*o*	c	i	s	t
l	e	m	o	n	s	y	r	u	p
p	r	o	f	i	t	a	b	l	e

E. S. McKee.

Cincinnati, O.

PULMONARY EDEMA

It has been determined that atropine, acting as a physiologic antidote, will prevent the pulmonary edema produced by muscarine or pilocarpine. We were unable to demonstrate any beneficial results from its use in edema from other causes. Nitroglycerin was also used, but only in that form due to adrenalin were we able to demonstrate any favorable effect. Intravenous injection of digitalis was also tried, but without special benefit. Barium chloride, inasmuch as it has a vasoconstrictor action by its effect on the unstriped muscle, was tried, thinking that perhaps, if vasodilation of the pulmonary artery was a factor, it might be overcome by this drug. The results, however, were entirely unsatisfactory. Bleeding also failed to give favorable results. It is true that by excessive withdrawal of blood the pressure in the pulmonary artery could be somewhat lowered, but meanwhile the pressure in the systemic circulation had been reduced to a dangerous degree.

Although the therapeutic results in our experimental edemas were so unsatisfactory, a knowledge of some of the factors at work should be of value in the intelligent treatment of this condition. We must remember that many attacks of acute pulmonary edema in man subside without treatment, and for this reason clinical experience on the value of therapeutic agents must be accepted with some reserve. The very marked disturbance of the circulation, which is the chief underlying cause of the edema, requires intelligent rather than empirical treatment. To give digitalis, caffeine or adrenalin in a case of pulmonary edema associated with high systemic blood pressure would probably hasten a fatal termination. Atropine under these conditions, on account of its raising the blood pressure by quickening the heart, would also be dangerous. In pulmonary edema associated with high arterial tension, efforts should be directed toward relieving vasomotor constriction by the vasodilators, counterirritation to the surface of the body, or bleeding. With the type of edema associated with low tension, this form of treatment might be injurious. Here digitalis and caffeine would be indicated.

It is interesting to note the frequency with which atropine is recommended in the treatment of acute pulmonary edema. Apparently the foundation of this treatment is the beneficial results obtained after poisoning with toadstools or pilocarpine. The pulmonary edema developing in nephritis after the use of pilocarpine is often due in reality to the drug, as it will produce an edema in the same manner as muscarine, and atropine is the recognized physiological antidote.

Tyson refers to the value of atropine in relieving the acute pulmonary edema in nephritis following excessive doses of pilocarpine. Another reason for its general use is based upon an entirely wrong conception of the pathology of pulmonary edema. That its power to lessen glandular secretion should recommend it is illogical, as the edematous fluid is not a secretion but a

transudate. The use of adrenalin is to be discouraged, as being under certain conditions very dangerous, and probably always valueless. Oxygen inhalations are harmless and give some temporary relief, and thus may assist in tiding a patient over. Morphine, by allaying the patient's fears, may be decidedly beneficial in its results, and could be safely given in small doses in any type of acute pulmonary edema. Venesection is another measure which is probably safe if applied to individuals not already decidedly anemic. Its real value, however, can only be determined by extensive clinical observations. Unfortunately for the science of medicine, no one physician is likely to see a sufficient number of cases of acute pulmonary edema during his lifetime to make a careful comparative study of the value of the various forms of treatment.
—J. L. MILLER, *Lancet-Clinic.*

CONTINUOUS APPLICATION OF COLD

Granting that a continuous *general* application of cold is injurious, it does not necessarily follow that every continuous *local* application of cold must also be injurious. Clinical experience has often proved that an ice-cap or continuous cold wet application is really of genuine benefit in the congestive headaches of fever. Atropine in minute doses is better, but sometimes both together are better still.

On the other hand, a dish of ice-cream or a drink of ice-water is no more a continuous application of cold than a cold enema would be. The cream is melted in the mouth and attains blood temperature very soon after reaching the stomach. The same is true of ice-water, with the additional fact that, if taken between meals, it soon passes out of the stomach entirely. Ice-cream is beneficial in inflammatory conditions of the throat, and the swallowing of small lumps of ice often stops persistent vomiting. Both are reactive applications. Eating ice-cream and drinking ice-water are cooling and beneficial in hot weather,—almost as much so as a cold sponge-bath would be.

Ice-water is undoubtedly responsible for a good deal of dyspepsia, but the fault lies not with its temperature so much as with the quantity ingested, the rapidity with which this is poured in, and the mixing of large quantities of various liquids with food. When the gastric juice is so highly diluted, it cannot be expected to do much work. I believe that hot coffee does more harm than cold water.

Query: Why is either a cold or hot drink relished, while a tepid one is nauseating and emetic?

C. F. MORRISON.

Springdale, Wash.

A TWIN MONSTROSITY

I am sending you a photograph of twins with their heads united solidly together. These boys were born on June 18, 1903.

A peculiar "monstrosity" reported by Dr. I. C. Somers

One of the babies has dark hair and the other one has light hair. The weight of the two babies was 13 1-2 pounds. They were

born heads first and labor lasted ten hours.

The mother had one boy born four years before and he was a well-developed child. On May 19, 1906, I waited on her in her confinement again, when she gave birth to another well-developed boy.

I. C. SOMERS.

Chanute, Kas.

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[The photograph which the Doctor sends is not a very good one but we publish it herewith.—ED.]

THE ALKALOIDS CAN BE RELIED UPON

CLINICAL MEDICINE for December was read with interest at the time, especially Dr. C. E. Yates's article. His experience with calx iodata created a desire in me to relate my own.

I have had an opportunity to test the value of this remedy in a number of cases of croup. Only last week I was called to see a boy of seven years. His parents said he had been hoarse and croupy for three days. I found him coughing almost continuously, struggling for breath. The father was uneasy and the mother in tears. I gave him calx iodata, 3 tablets in hot water every fifteen minutes, for five doses, then ordered them given two every half hour, for several doses, then every one hour, and finally every two hours. The change was wonderful. The little patient was easy long before I left the house, which was inside of two hours, and the next day he was well.

This is only one case of several fully as severe. Some of them were relieved at once but showed the effects for two or three days after. In some cases I have added to the calx iodata apomorphine or emetine, sometimes the infant anodyne granule, and have had cases where glonoin was a help. I frequently prescribe calx iodata in ordinary "colds" with glandular enlargement.

I am pleased with the hyoscine and morphine combination. Also triple arsenates with nuclein are a standby. Nuclein solution hypodermically has been a great help to me in some cases. In fact the above remedies together with many of the alkaloids, and other active principles, the sulphocarbolates and the uterine tonic formula of Dr. Buckley, have all answered their purpose.

Of course I have never raised the dead, but I have had patients by whose bedside I sat the night through and administered my heart tonics and other remedies every half to one hour, when they were not able to swallow and when no pulsation was perceptible at the wrist, and have seen them gradually come back to life and strength so that they could speak audibly in two days' time and finally get about their duties. Not cure-alls, but what I can rely on—the alkaloids.

A. I. MITCHELL.

Chelan, Wash.

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[This letter, with hundreds of others like unto it, is the best answer to the critics of "the alkaloidal way"—of which there are still a few. The alkaloids and active principles will not "raise the dead," but properly used they *will* save many a patient from an untimely grave.—ED.]

A CASE OF PUERPERAL ECLAMPSIA

I was called at 2:30 yesterday morning to M. S., age 32, a primipara, and found her in a most violent uremic convulsion. She had fallen on the floor; I lifted her and put her into bed, when she was immediately seized with another, almost as violent. I telephoned for assistance and commenced chloroform, and proceeded to dilate the cervix and induce labor, which was expected that same day. My colleague, Dr. S., came and we gave a hypodermic of 20 minims of tincture of veratrum viride. Patient was unconscious, with stertorous breathing, but under the influence of the anesthetic and the veratrum breathing became more normal and the tissues relaxed. The pulse falling from 140 to about 90 and losing its wire edge greatly, another hypodermic of veratrum was given, about the same amount, bringing the pulse down to 60 and quite full and soft.

All this time mechanical dilation was being carried on, membranes ruptured, and some normal labor-pains set in, which finally caused the head to engage in the upper strait. Long Tornier axis-traction forceps were placed in position with difficulty, and at 11 a. m. a dead female child of about 8 pounds' weight was delivered from R. O. P. As soon as the placenta was removed by Credé's method the patient recovered consciousness, and said she felt good. She was perfectly normal and had no headache at all, simply complaining of soreness and backache. She slept quietly for half an hour, then woke and was restless, turning from side to side and complaining of backache. We were both afraid of another convulsion, so gelsemin was given in full dose and also veratrum. Pulse began to get wiry and rapid and weak. Strychnine and atropine were given hypodermically, brandy and milk *per rectum* and pilocarpine *per os*, with plenty of water. As there had been no loss of blood we thought it unnecessary to use normal saline. Patient continued restless, but perfectly conscious and rational till 2:45, then a fourth convulsion occurred, and she passed away.

Now, there is nothing unusual in all this, but I took the greatest care of the case all through pregnancy. I gave Basham's mixture, tritica, or full doses of arbutin, varying them from time to time to keep the kidneys acting. I never found any albumin until four days before death and then only 0.75 percent by picric-acid test. I found nothing but earthy phosphates and urates, no indican, etc. The bowels I kept free with the bile salt and salines, and their action was perfect.

The patient was in affluent circumstances and could and did have the best of care, took regular exercise and was absolutely well all the way through. She never had a headache and only slight edema of the feet and ankles, which I ascribed to pressure on the portal system during the last ten days. She had a good hot bath with epsom salt three nights a week. The excretion of urea was better than normal through the action of boldine given in hot water t. i. d., and the total solids were all up to standard. In fact it was a perfectly normal case in a happy, healthy girl.

Now will someone criticize or theorize on the outcome. I know there is some German who claims that the placenta contains highly toxic material. *This* placenta was small, and had three small whitish spots about half an inch in diameter and of a soft fibroid nature, and the cord was thin and about 20 inches long.

There have been four still-born children in this town during this last month, and two women died, one from hemorrhage and the other, I think, from uremia. I have three more confinements expected any minute and I am not looking forward to them with pleasure. This is the first mother I have lost in this town for eighteen years.

HUGH JAMESON.

Titusville, Pa.

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[As soon as I saw Hugh Jameson's name at the top of that letter, I knew there was something coming which would tax my limited capacity. If I were asked for an absolutely perfect system of caring for a woman during her first pregnancy, I should unhesitatingly point to Dr. Jameson's letter as an example. Nevertheless, the woman died.

I feel strongly tempted to fall back on the undisputable proposition that no matter how perfect our system may be made there never will be a time when some patients will not die of curable disease. During the thirty years of my active practice it was my custom to put every pregnant woman upon a diet of buttermilk, and since then I never had a solitary case of puerperal convulsions in my own practice, except consultation cases. I have a good deal of confidence in that agent as a preventive. Dr. Jameson has had equally good results without it. The use of buttermilk seems like an old granny's tale beside his thoroughly scientific modern methods.

There is only one point for which I could suggest a different treatment, and whether it would have succeeded any better I am far from asserting; that is, that after the

confinement I should have injected into the bowel a cold concentrated solution of table salt in order to induce profuse exosmosis and drain from her system the toxins. This I should have done instead of giving more sedatives. Of course I should have used veratrine instead of veratrum viride, but Dr. Jameson has infinitely more authority in favor of his preparation than I could show for mine. Besides, what he gave accomplished its object—it gave relief, and I could not truthfully say that I should have expected more from veratrine. The significance of the case I leave for the comments of others. I do not see that it throws any light on the death of the woman.—ED.]

HOW TO GET TO RAVENSWOOD

A number of our subscribers who have visited Chicago during the past few months have failed to visit "the home of THE CLINIC" because they did not know how to find the way out to Ravenswood. Only a few days ago we received a letter from one of our friends, who lives in the Nation's Capital, who is anxious that we shall give specific directions so that the next time he comes to Chicago he may not fail to see us.

Here are the directions:

1. Take the car marked "Ravenswood" at any station on the "loop" of the Northwestern Elevated railroad in the downtown business section of the city. Get off at Ravenswood Station, which is reached after about half an hour's ride. We are one block east and two blocks north of this station.

2. Inquire of any policeman the location of the Northwestern Railroad station. Take a suburban train (there are trains every few minutes throughout the day) to Ravenswood. Our place of business is two blocks north of that station.

3. Take the "North Clark St. to Devon Ave." surface car downtown somewhere within the "loop" (any policeman can direct you to the nearest place to get this car) ride north to Lawrence Ave—about 40 minutes' ride—then walk four blocks west.

There are other ways but one of these three will meet the needs of almost any man. Many of our friends have visited us and we hope to see a great many more. There should be many physicians in Chicago during June, *en route* to or returning from the A. M. A. meeting at Atlantic City or in attendance upon the National Eclectic Medical Association, which meets in this city June 15 to 18. We extend a cordial invitation for all of you to some out and see us.

THE DIVINITY OF MATRIMONY: A CATHOLIC BROTHER PROTESTS

In your March number, page 253, you quote the following striking passage from Marquis Ito: "It is the right, it is the duty of every man of learning, who has a conception of the world, to express that conception, whatever it may be. Whoever thinks he knows the truth, must tell it. The honor of the human mind is at stake. The rights o the mind are superior to everything."

Let this passage be my apology in entering a most emphatic protest against the concluding paragraphs of an otherwise excellent article by G. Frank Lydston, M. D., "On the Social Evil and Its Remedies," which occupies five pages (278-283) in the same number.

The "divinity" of matrimony, says the author, is as absurd as the cosmogony of Genesis, from which its theory was derived.

I remark, first of all, that, since no sane man can hold an absurdity to be anything but an absurdity, the multitudinous millions of human beings who have refused and who still refuse to reject the cosmogony of Genesis as absurd are branded by the author as an unnumbered multitude of downright fools.

I remark, secondly, that the derivation of the "divinity" of matrimony from the cosmogony of Genesis comes from none other than Jesus Christ. When the Pharisees asked him if it were lawful for a man to put away his wife, He answered (Matt. 19:4): "Have ye not read that He who made man from the beginning made them male and female?" and then quotes Gen. 2:24: "For this cause shall a man leave father and

mother and shall cleave to his wife, and they shall be two in one flesh." Then he concludes: "Therefore now they are not two, but one flesh. What therefore God hath joined together let no man put asunder." These are the words of the Son of God himself. Who, I would ask, dares to contradict them?

I defy the author to prove the absurdity of the cosmogony of Genesis. And I warn him beforehand that the absurdity of that cosmogony is not one and the same thing with the absurdity of his interpretation of it.

The author rightly considers matrimony "as the sheet-anchor of society, as a civil and social contract, upon the fulfillment of which rests the very foundation of society."

I ask him now, whether a candid glance at history does not show the evidence that the matrimonial tie can only then fulfill its purpose when it is looked upon with the eyes of Christ: as a lifelong school of self-denial, self-discipline, self-renunciation, the only school that develops the highest and most personal powers of man.

The bitter struggle of man with himself—the source of hat arsenal of moral and intellectual strength, which, however diminished by the unblushing self-indulgence of our times, is yet day by day producing wonders of science—this bitter struggle, as is evident, celebrates its triumph most often on the Christ-sanctioned field of life-long matrimony.

Truly, eugeny will have its day only in as far as matrimony, the shee -anchor of society, remains imbedded in the God-given rock of indissolubility. That it will remain mbedded there is insured by the tenacity with which it has resisted all the Titanic efforts made by modern passion to dislodge it, as well as by the word of its Author, who promised to be with His disciples even to the consummation of the world.

Now, dear Editor, I think that there will be a good many of your readers who will join me in this my protest against the profanation of the "Divine" institution that for more than 6000 years has shown its sacredness by the disastrous results that have followed its violation among ancient as well as modern nations.

BR. C.

——, Missouri.

[The writer of this letter is a Catholic brother, an inmate of one of the great religious institutions in which our brethren of this faith are working so zealously for mankind.—ED.]

DIAGNOSTIC AND THERAPEUTIC HELPS

If a child has convulsions, find out whether there is fever.

If a child vomits and has fever, ask first whether there is diarrhea or constipation.

If a child gets dyspepsia, find out whether it gets too much to eat.

When you use alum for the throat, remember that it injures the teeth.

In hemorrhage after the extraction of a tooth try alum.

For the severe pains of hyperchlorhydria give ammonium chloride, 10 grains, half an hour before meals.

Tartar emetic should never be given with acids, alkalis or drugs containing tannin.

Rice-water stools are found in cholera, antimony poisoning and arsenic poisoning.

If acetanilid causes blueness of the lips and finger-tips and chills followed by profuse sweating, stop it.

Some people are poisoned by normal doses of acetanilid.

Never use coaltar-antipyretics in pulmonary tuberculosis.

Diabetes mellitus may depend upon a gouty diathesis. Then try salicylates and antipyrin.

In whooping-cough try antipyrin, 2 grains every four hours till lips and finger-tips get blue.

GUSTAF F. HEINEN

Blossburg, Pa.

ESPERANTO FOR PHYSICIANS

It is not considered necessary in these lessons to discuss the principles of grammar in general. Every physician is sup-

posed to have attained to a standard of general education that will make him familiar with the parts of speech and their uses, in accordance with general grammar.

The definite article.—"The" is *la.* As in English, it is unchangeable, the same for all numbers, genders and cases. Thus: *la okulo estas sentema,* the eye is sensitive; *la viro estas granda,* the man is big; *la virino estas bela,* the woman is beautiful; *la dentoj estas blankaj,* the teeth are white; *li rompis la brakon,* he broke (or has broken) his (the) arm; *mi parolos kun la kuracistoj,* I will speak with the physicians; *la knabo akrigas la tranĉilojn,* the boy is sharpening (sharpens) the knives.

Its use is much as in English. In some respects, however, it follows the usage of various foreign languages. For instance, it is used when the entire class of things is spoken of, where in English it would be omitted. Thus, *la homo estas mortema,* (the race of) man is mortal. *La birdoj flugas,* (the class of) birds fly; *la lakto estas utila al la sano,* (the) milk is useful to (or good for) the health; *la neĝo estas malvarma,* snow is cold. [Here the article is used because we mean all snow, snow generally or as a whole; but, *hodiaŭ ni havos neĝon,* today we shall have snow; because we mean some snow, not all the snow there is.]

Again, the article *la* is sometimes used where in English a possessive pronoun would be used; *li havas cindron en la okulo,* he has a cinder in his (the) eye. [He could not well have one in anyone else's eye.] In speaking of the parts of the body and the things that relate to the individual's own personality, therefore, the definite article commonly replaces the possessive pronoun. But it would not be wrong to follow the English mode. Thus we may say, *Ĉu estas la* (or *via*) *patro hejme?* Is the (your) father at home?

The indefinite article.—"A" or "an" is not expressed in Esperanto. *Pilolo,* a pill; *mi bezonas laksilon,* I need an aperient; *akcidento okazis,* an accident has happened.

How to Use the Exercises.

The student should now take an exercise book and translate into English all the preceding and following Esperanto phrases, using the left-hand page only, and leaving a blank line between each sentence or phrase. After a few days when he has so translated several such exercises, he should turn back, and retranslate into Esperanto, on the corresponding lines of the right-hand page, the sentences previously translated into English, at the same time repeating the sentence aloud, to acquire the pronunciation.

As he retranslates into Esperanto, it is a good plan to name the part of speech and its grammatical relation to the other words in the sentence. Thus, in the sentence, *la okulo estas sentema,* he would say: *la,* definite article defining *okulo; okulo,* a substantive in the nominative case, the subject of the verb *estas; estas,* a verb in the present tense, saying something about *okulo; sentema,* an adjective qualifying *okulo,* and completing the predicate with *estas.*

This method should be followed throughout the lessons with all the exercises. The translation of the exercises will be given in a later issue, so that the learner may correct his translations thereby.

From the foregoing it will be seen that—differing from what is the case in every other language—*it is not necessary to know the meaning of a sentence in Esperanto, to be able to parse it.* On the contrary, the facility with which the construction of the sentence can be recognized at sight by the terminations of the words, is a great help to understand-

ing the sentence, when once the meaning of the roots has been learned. This point alone would give to Esperanto a great superiority over all other languages in ease of acquirement.

The Exercises.

These are mainly based on the *Ekzercaro* (collection of exercises) of Dr. Zamenhof; but, to render them especially suited to physicians, a special vocabulary will be selected. In the earlier exercises the roots will be given in the vocabulary, joined by a hyphen to the terminals that convert them into the required words. When a sufficient facility has been acquired in the use of the terminals, the root only will be given in the vocabulary, the student being expected to supply the proper terminal, according to the required part of speech. The vocabularies should be learned by heart.

REMEMBER, THAT

All nouns end in *o* (singular), or *oj* (plural), added to the root; thus, *vir-o*, man, *vir-oj*, men.

All adjectives end in *a* (singular) or *aj* (plural), added to the root: thus, *bon-a vir-o*, good man; *bon-aj vir-oj*, good men.

The accusative is formed by adding *n* to the noun or adjective terminal; *bona-n viro-n, bonaj-n viroj-n.*

All adverbs end in *e* added to the root, or substituted for the terminal *a* or *o* of adjectives or nouns.

ANY root that is susceptible of the meaning of noun, adjective, adverb, or verb, any or all of them, becomes such part of speech by adding the appropriate terminal. Thus, from *lern-*, the root idea of learning, come *lern-o*, learning; *lern-a*, learned; *lern-e*, learnedly; *lern-i*, to learn; *lern-as*, learn or learns, etc.

Exercise I.

patr-o, father
onkl-o, uncle.
korp-o, body.
il-o, instrument.
knab-o, boy.
frat-o, brother.
vir-o, man.
brak-o, arm.
fil-o, son.
hom-o, human being, man.
man-o, hand.
kap-o, head.
part-o, part.
fingr-o, finger.
stcteskop-o, stethoscope.
okul-o, eye.
kor-o, heart.
termometr-o, thermometer.
kaj, and.

est-i, to be.
sufer-as, suffer, suffers.
est-as, am, is, are.
la, the.
tial, therefore.
sufer-i, to suffer.
de, of.

Patro kaj filo.—Patro estas viro.—Viro estas homo.—Filo estas knabo.—Knabo estas homo.—Frato kaj onklo estas viroj. Tial patro, filo, frato, kaj onklo estas homoj.—La mano estas parto de la brako. —La fingro estas parto de la mano.—Fingro, mano, kaj brako estas partoj de la korpo.—La okulo estas parto de la kapo, kaj la kapo estas parto de la korpo, tial la okulo estas parto de la korpo.—La steteskopo estas ilo.—Termometro estas ilo.—Steteskopoj kaj termometroj estas iloj.—La knabo suferas.—La patro kaj la onklo suferas.

Exercise II.

bon-a, good.
matur-a, mature.
profund-a, deep.
infan-o, child.
tabl-o, table.
hav-i, to have.
kie, where.
ĝi, it.
san-i, to be well.
san-a, healthy, well.
long-a, long.
dolor-a, painful.
lit-o, bed.
kuŝ-i, to lie.
en, in
plor-i, to weep, cry.
jam, now, already.
ne, no, not.
jam ne, no longer
util-a, useful.
larĝ-a, wide.
danĝer-a, dangerous.
vund-o, wound.
libr-o, book.
seĝ-o, chair.
seĝ-i, to sit.
jen, lo, behold.
jen estas, here is.
sur, upon.
sed, but.
pro, for, on account of.

Infano ne estas matura homo.—Matura homo jam ne estas infano.—

La infano jam ne ploras.—La knabo estas bona infano.—La infano estas sana.—Vundo estas dolora.—La vundo estas larĝa kaj longa, sed ne profunda, tial ĝi ne estas danĝera.—Kie estas la steteskopo kaj la termometro?—La steteskopo estas sur la tablo, sed la termometro estas sur la lito.—Steteskopoj kaj termometroj estas utilaj iloj.—La viro kuŝas sur la lito.—Kie estas la knabo?—La knabo seĝas en la seĝo.—Kie estas la libro? Ĝi kuŝas sur la tablo.—La onklo havas vundon en la brako, sed ĝi jam ne estas dolora.—La filo suferas doloroj n en la kapo.—Doloro en la kapo estas kapdoloro, sed doloro en la dentoj estas dentdoloro.—La infano havas vundon en la kapo kaj suferas doloron en la okuloj.—La patro sanas, sed la frato suferas dolorojn en la korpo.—Viro kuŝas sur lito sed seĝas en seĝo.—La patro kuŝas sur la lito kaj la filo seĝas en la seĝo.—La infano ploras pro doloro, ĝi ne estas sana.

Prefixes and Suffixes.

As words are built up in English by prefixes and suffixes, so they are built up in Esperanto, but with this difference: In English we have many suffixes and prefixes for one meaning, and sometimes more than one meaning to a given suffix; e. g., to imply negation, we have *a*-septic, *il*-legal, *im*-probable, *in*-variable, *ir*-reverent, and *un*-likely. Again in God-*head*, man-*hood*, king-*ship*, free-*dom*, wed-*lock*, kind-*red*, the italicized parts all represent "state," "condition," or "office." On the other hand, *in*-significant means of no account at all, whereas *in*-valuable means so extremely valuable as to be beyond price. But in Esperanto there is one suffix or prefix for each repeatedly occurring signification, and only one meaning for each suffix or prefix.

The following are the principal prefixes and suffixes used to modify nouns, adjectives, and adverbs. A few less common ones will be dealt with later on, as also will those modifying verbs.

Prefixes.

BO—indicates relationship by marriage: *patr-o*, father, *bo-patr-o*, father-in-law.

ĈEF—principal or head: *ĉef-ĥirurgisto* chief surgeon. (Also this, and some other prefixes and affixes, can themselves be used as roots and converted into nouns, adjectives, etc. Thus, *ĉef-o*, a chief, *ĉef-a*, chief.)

GE—persons of both sexes spoken of together: *edz-o*, husband, *ge-edz-oj*, husband and wife; *patr-o*, father, *ge-patr-oj*, parents. The noun, of course, is always in the plural after *ge-*.

MAL—the contrary of the word to which it is prefixed. *San-a*, healthy, well, *mal-san-a*, unhealthy, ill; *bonec-o*, goodness, *mal-bonec-o*, evil (*mal-o*, the contrary, *mal-a*, contrary, perverse, *mal-e*, on the contrary.)

NE—merely negatives the idea expressed by the word to which it is prefixed: *bel-a*, beautiful, *ne-bel-a*, not beautiful, plain. (Note that the opposite would be *mal-bel-a*, ugly.) This prefix is used with adjectives. (Also *ne-i*, to deny, *ne-o*, denial, *ne-a*, negative, *ne-e*, negatively.)

SEN—denotes absence of the thing named. It is the analogue with nouns of *ne* with adjectives. *Sen-hara*, hairless; *sen-braka*, armless.

Suffixes.

AN—an inhabitant, member, or partisan. *Amerik-o*, America, *Amerik-an-o*, an American; *societ-o*, a society, *societ-an-o*, a member of a society; *Christ-o*, Christ, *Christ-an-o*, a Christian. Also *an-o*, *a* member, as of a club, etc.)

AĴ—The concrete result of an action or the product of something. *Skrib-i*, to write, *skrib-aĵ-o*, a writing—thing written; a writing, i. e., the act of writing, is *skrib-o*. (*aĵ-o*, a thing.)

AR—Collectiveness: *il-o,* an instrument, *il-ar-o,* a collection of instruments; *arb-o,* a tree, *arb-ar-o,* a wood or forest. (*ar-o,* a collection.)

EBL—potentiality (cf. English—*able,—ible*): *mov-i,* to move, *mov-ebl-a,* movable. (*ebl-a,* possible, *ebl-e,* possibly.)

EC—Abstract quality (like English—*ness*): *bon-a,* good, *bon-ec-o,* goodness; *ebl-a,* possible, *ebl-ec-o,* possibility (*ec-o,* a quality.)

EG—augmentative: *granda,* great, *grand-eg-a,* enormous; *dom-o,* a house, *dom-eg-o,* a mansion. (*eg-a,* intense, *eg-ec-o,* intensity.)

EJ—the place in which: *operaci-i,* to operate (surgically), *operaci-ej-o,* operation room; *kuir-i,* to cook, *kuir-ej-o,* kitchen. (*ej-o,* a place, location, locality.)

EM—propensity, inclination, disposition: *am-i,* to love, *am-em-a,* of a loving disposition, affectionate; *infekt-i,* to infect, *infekt-em-a,* infectious, (*em-o,* propensity.)

ER—One out of many: *sabl-o,* sand, *sabl-er-o,* a grain of sand. (*Er-o,* an item, or unit.)

ESTR—Chief, leader, or head of anything: *firm-o,* a business firm, *firm-estr-o,* the head of the firm, (*estro-a,* a chief or leader.)

ET—diminutive: *vezik-o,* a bladder or blister, *vezik-et-o,* a vesicle; *surd-a,* deaf, *surd-et-a,* slightly deaf, (*et-a,* diminutive.)

IDO—the young of anything, a descendant: *hund-o,* a dog, *hund-id-o,* a puppy. (*id-o,* offspring.)

IL—instrument or means: *tranĉ-i,* to cut, *tranĉ-il-o,* a knife; *lig-i,* to tie, *lig-il-o,* a ligature; *kudr-i,* to sew, *kudr-il-o,* a needle; *kurac-i,* to treat (as a physician), *kurac-il-o,* a therapeutic measure. (*il-o,* an instrument.)

IN—the female sex: *vir-o,* a man, *vir-in-o,* a woman; *patr-o,* father, *patr-in-o,* mother; *bov-o,* ox, *bov-in-o,* cow. (*In-o,* a female.)

IND—worthy of: *laud-i,* to praise, *laud-ind-a,* praiseworthy. (*ind-o,* worth, merit; *inda,* worthy.)

ING—that which holds: *kudr-il-o,* a needle, *kudr-il-ing-o,* a needle-holder; *glav-o,* a sword, *glav-ing-o,* a scabbard. (*ing-o,* a sheath or socket.)

IST—profession, habitual occupation: *kurac-i,* to treat (as a physician), *kurac-ist-o,* a physician; *hirurgi-o,* surgery, *hirurgi-ist-o,* a surgeon; *farmaci-o,* pharmacy, *farmaci-ist-o,* a pharmacist; *drog-o,* a drug, *drog-ist-o,* a druggist.

UJ—that which contains, produces, encloses, bears, many of the same kind: *cigar-o,* a cigar, *cigar-uj-o,* a cigar-box; *ink-o,* ink, *ink-uj-o,* an inkpot; *vinber-o,* a grape, *vinber-uj-o,* a grapevine; *franc-o,* a Frenchman, *Franc-uj-o,* France. (*uj-o,* a container or receptacle.)

UL—One characterized by: *malsan-a,* sick, *malsan-ul-o,* a sick person, invalid; *lern-a,* learned, *lern-ul-o,* a scholar. (*ul-o,* a person.)

[ERRATUM.—Unfortunately, a few errors crept into the article in our May issue. Four of them are sufficiently important to demand correction:

1. In some (not all) copies a third (erroneous) line was left below the corrected line, in the enumeration of the Esperanto alphabet. The upper two lines alone constitute the Esperanto alphabet.

2. At the end of the same section, the combinations *ks* and *kz* are wrongly described. The *k* is always sounded as k, never as g (as in English, *examine*), before both s and z.

3. In the reading lesson, the words *celo* and *frue* (the latter twice) have the pronunciation given as tsee-loh and froo-ee, instead of tseh-lo and froo-*eh;* also *ĉio* is given as *sh*ee-oh instead of *tch*ee-oh.

4. *Fovirante,* in the last line but one, is a misprint for *forirante.*]

CLINICAL · MEDICINE
POST-GRADUATE-SCHOOL of THERAPEUTICS

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PART TWO—LESSON SIX

INNERVATION (Continued)

HYPNOTICS (Continued)

Sulfonal is practically without toxic properties and is one of our safest hypnotics. It has no depressing action upon the heart. It affects the cerebral cortex like chloral, but has less influence on the motor and sensory nerves. The hypnotic action is very much slower than that of chloral, requiring from three to eight hours to produce sleep, which averages about seven hours. More or less drowsiness is experienced the next day after a single dose and it often happens that sleep is better on the second night. Where the administration of sulfonal is rendered necessary for a continuous period it often suffices to give a sufficient dose on alternate nights only.

Sulfonal is a valuable hypnotic in insomnia unaccompanied by pain, and particularly to produce sleep in the insane and to quiet their intense excitement. When insomnia is accompanied by considerable motor restlessne s the combination of either sulfonal, trional or veronal with some vegetable narcotic such as hyoscyamus, conium, etc., frequently is beneficial in inducing sleep and to allay this condition. The following excellent formula is an example: Sulfonal, grs. 3; fluid extract of conium, min. 3. Dispense in one capsule. Two such capsules may be taken at 6 p. m., two at 8, and two at 10 o'clock. The following night half this quantity probably will suffice. Lately I have been using 3 grains of sulfonal with 1-67 grain of cicutine to each capsule. I think that the cicutine is more uniform in strength than the conium. This prescription answers pretty well in many spasmodic disorders, e. g., hiccough, chorea, spasmodic contractions, and has even proven of some value in epilepsy.

If the preparation of sulfonal and cicutine is chosen the powder should be given in hot whisky as thus it is more readily dissolved and absorbed than if given in dry form. Sulfonal acts much better when given in small doses, say 3 to 5 grains repeated every two or three hours for two, three or four doses, than when given in one large dose.

Trional is closely allied to sulfonal, but owing to its greater solubility is more prompt in action, its effects being evidenced in about half an hour after taking and continuing for from four to eight hours, according to the size of the dose. It is almost entirely free from unpleasant after-disturbances, but like other hypnotics of its kind, it has little power to relieve pain. It is frequently given with

sulfonal, and the two act well in combination. The dose ranges from 5 to 15 grains.

Veronal is a white crystalline powder, entirely soluble. This may be given in the same dose as the trional. It is a valuable hypnotic, especially popular at the present time. It does, however, give rise to some untoward symptoms. Many cases of dizziness and mild headaches have followed its use. Still, taking it altogether, it is considered to be safe and efficient. It is considered to be a valuable hypnotic in the insomnia of hemorrhage following childbirth; it also is useful in mild maniacal excitement. An excellent combination is one containing 5 grains of veronal, 1-4 grain codeine sulphate and 1-250 grain amorphous hyoscyamine.

Hedonal is a valuable hypnotic in the insomnia of neurasthenia and in insomnia of Bright's disease, because it is markedly diuretic. It is much milder than the others mentioned, from 15 to 45 grains being required where insomnia is the main condition without any serious underlying cause.

Amylene Hydrate is one of the most promising remedies. It is stronger than paraldehyde and weaker than chloral. It is pleasanter to take than either of them. It is probably safer than chloral, producing its hypnotic effects sooner, these being usually manifested in from five to thirty minutes; the awakening ordinarily is prompt and complete.

Amylene hydrate is indicated in insomnia accompanied by muscular cramps, and although not an analgesant in the true sense of the word, it relieves pain indirectly by allaying the cramps, the cause of pain. In this way it sometimes affords relief in hepatic colic, and also it is said to remove the catarrhal state of the mucous membrane which is the cause of the accompanying jaundice. It is given in doses of 1 to 2 fluid drams, and is best administered in a mixture of wine and syrup of licorice.

Paraldehyde is more hypnotic than anodyne, appearing to be best adapted to relieve socalled physiopathic insomnia. It is a better diuretic than chloral in certain degenerated conditions of the arteries; where a diuretic as well as a hypnotic is desirable paraldehyde serves as a valuable remedy. The dose is from 15 minims to 1 fluid dram, and it should be given in form of emulsion, flavored with oil of orange or bitter almond. Glycerin renders it quite soluble. On the whole, it is more disagreeable to the taste than any of the other hypnotics while imparting to the breath an offensive and persistent odor.

Side-Effects of Hypnotics.—It is to be noted that hypnotics may be roughly divided into those having cumulative action and those destitute of this. Almost all the synthetics are cumulative in their action, while vegetable hypnotics as a rule are not. Furthermore, almost all hypnotics are more or less alterative and antipyretic.

This peculiar alterative influence is excellently exhibited in the frequency with which erythema and its congeners appear among the untoward symptoms. The same action is demonstrated in the frequency with which hematoporphyrinuria occurs through their untoward influence on the kidneys. This has been noted with chloral and its derivatives, with sulfonal, tetronal, trional, veronal and allied synthetics. Paraldehyde and its congeners have shown similar effects. A peculiar anemia superinduced by chloral, paraldehyde, etc., also has been noted by many observers after the use of these drugs.

The mental states produced by the drugs in question belong to the stuporous and confusional types, such as result from the autotoxemias, whether produced directly from imperfect elimination or from the latter secondary to normal shocks, to traumatism, insolation, or the exanthems. The stuporous conditions usually are preceded by vertigo, numbness, ataxic symptoms and allied phenomena before the full development of the mental state.

While it has been claimed by certain authors that some of the synthetics, such as veronal, for example, are destitute of these untoward effects, still the same persons may state that on the day following the exhibition of this particular synthetic hebetude vertigo and similar symptoms occur. This is in accordance with what has been observed

with similar hypnotics, and is a feature which indicates cumulative influence of both alterative and hypnotic value.

The problem is suggested whether by suitable dosage at regular intervals and under settled conditions of the system this cumulative action can be employed to the advantage of the patient in securing the habit of sleep and in changing the general condition of the system which predisposes to insomnia, such as, for instance, the influence of imperfect metabolism in the production of insomnia, and of what are practically states of coma vigil. These latter conditions are frequent among insomniacs, but are unfortunately regarded as true sleep. Their nature is recognized in connection with typhoid fever and the condition of toxic starvation allied thereto, but is ignored in ordinary insomnia.

The Neurasthenic Type of Insomnia is peculiarly allied to coma vigil psychically, inasmuch as the victim, while sleeping often four times as much as he admits, has no sense of rest from the sleep. Behind this state is generally the condition of disturbed metabolism, which expresses itself as acidemia, acidosis, glycosuria, etc. All of these conditions are frequent after severe nerve-strains, whether arising from mental shocks, or physiologic or other depression, insolation, traumatism, or the conditions produced by the exanthems.

All of these tend to increase the blood-pressure and predispose to atheromas and arteriosclerosis. This is particularly true of the exanthems and of typhoid fever, as well as the allied states, which is why cases of seeming neurathenia develop apoplectiform conditions, followed by temporary or permanent paralysis. As these arterial changes are particularly liable to affect the blood-vessels concerned with elimination, as they do also other vascular end-organs, there frequently appears the arteriocapillary fibrosis, which Gall and Sutton demonstrated forty years ago, to underlie most of the nephritides.

The problem, therefore, of insomnia is connected with the relief both of the symptom-insomnia *and of the irregular metabolism which underlies this*, and which keeps up the vicious circle of vascular disturbance prolonging the insomnia habit.

Normal sleep, moreover, has periods when it gives greatest rest. The period between one and five is the time when most rest is required. During this period the system is at its lowest ebb, and exertion, conscious or dreamy, produces its greatest strain. It is in consequence of this strain that nightmares and anxious dreams cause such vascular tension that the victim often awakens with what are practically attacks of tachycardia, often reaching the point of angina pectoris, accompanied with decided dyspnea and other evidences of disturbance of the monarchical medullary vasomotor center.

The aim, therefore, of any hypnotic should be to secure restful sleep, to correct or restrain the effect of disturbed metabolism, and likewise to restrain undue action upon the monarchical medullary vasomotor center.

When and How to Give Hypnotics.—In administering the cumulative hypnotics, certain methods can be employed which will secure the action of the hypnotic between the regular sleeping hours when the medulla, unrestrained by the forebrain, should pursue its purely rhythmic action without interference. This method of administration, moreover, enlists the help of the rhythmic tendency of the nervous system in support of the lost habit of sleep. Habits are the product of this rhythmic tendency of the nervous system to repeat an action once engendered. The insomniac suffers from this habit-tendency, which contributes to the increase of sleeplessness, this being particularly potent when the system is weakest and control of the central nervous system is absent.

Since the synthetic hypnotic drugs all display cumulative tendencies, and since when given in a large single dose they produce an inclination to drowsiness, vertigo or hebetude in the afternoon (as a rule) of the day following their administration, it is clearly obvious that given in divided doses, to secure cumulated effect at the period when this is most needed, the desired action (sleep) will,

under the rhythmic law of the nervous system, tend to be produced again, at the same hour, the night following their first administration. Furthermore, it is obvious that with the habit-tendency of the nervous system aiding the sleep-tendency, at a certain hour, smaller and smaller doses of the hypnotic will be required, and so the problem of the acquisition of a drug-habit from these hypnotics will solve itself. It has been found by neurologists that one-third of the total quantity of a hypnotic needed to produce sleep in habit-insomnia at the outset of treatment will secure restful slumber for a week.

In connection with the alterative influences of the hypnotics, the fact should be remembered that the problem of elimination is concerned not only with the products of irregular metabolism but with the products changed by the action of these drugs as well.

For this reason it may be necessary to add as *synergists* to the cumulative hypnotics some of the vegetable hypnotics exerting a similar alterative action of a type which favors elimination. The best of these will be found to be conium, or its alkaloid cicutine, which for the last twenty centuries has been unrivaled as a motor sedative, and which does not affect the intellect or retard elimination.

Among the other vegetable hypnotics which are found valuable as *synergist* to the synthetics are hyoscyamus, hyoscine, scopolamine, eserine, duboisine, apocodeine. The last-named drug is the only opium derivative which does not affect intestinal action. These vegetable hypnotics, moreover, are synergistic in the highest degree, and they act independently of any influence on elimination.

Untoward Effects of Synthetic Hypnotics.—A study of the untoward effects of the different synthetic hypnotics gives a marked clue to their therapeutic action on the principles just described.

Hydracetin, for example, produces collapse, syncope, fever, hyperidrosis, pseudoangina, vertigo, ataxic symptoms, numbness, amblyopia, conjunctivitis, erythema, purpuric eruptions, strangury and green urine.

Methacetin (monobromacetanilid) produces identical symptoms, as do also phenacetin, serocin, antikamnia, ammonol, antipyrin, and, more intensely, acetanilid (antifebrin) and exalgin. Chloral hydrate produces very similar symptoms, but in addition hematoporphyrinuria, icterus, albuminuria and glycosuria; the same is true of all derivatives of chloral.

Paraldehyde produces dyspnea, gastralgia, diarrhea, cyanosis, nausea, vertigo, stupor, delirium, paresthesia, ataxic symptoms, amblyopia, erythema, purpura, hematoporphyrinuria, glycosuria, icterus and albuminuria.

Practically the same untoward effects, albeit in less degree, are produced by sulfonal, tetronal, trional and veronal.

The bromides produce collapse, pseudoangina, lung edema, coryza, salivation, gastralgia, nausea, fetid breath, aphrodisia, amenorrhea, delirium, spasms, anesthesia, hyperesthesia, stupor, ataxic symptoms, amblyopia, diplopia, throat anesthesia, erythema, acne, dysuria, polyuria, glycosuria and icterus.

The vegetable hypnotics which produce similar untoward effects are best adapted for synergists, and a description of these, carefully collated from medical literature, can be found in Butler's "Text-Book of Materia Medica, Therapeutics and Pharmacology."

The Factors Underlying Insomnia are disturbances of metabolism, causing the circulation of toxic products which interfere with proper blood supply, and with the sleep-habit by introducing an irritating factor on the monarchical vasomotor center at a time when this requires most regular rhythmic action.

The cumulative effects of the hypnotics, as shown by their extreme effect hours after their first administration, indicate that this result can be secured by broken doses given at intervals, so as to secure the acme of their influence during the hours after 12, midnight, when this influence is most needed.

The various alterative effects of the hypnotics serve as an indication that they will

counteract the effects occasioned by the products of altered metabolism which are irritating the monarchical vasomotor center of the medulla. The synthetics, which are more potent in these particulars can be aided and their injurious effects removed by the addition of vegetable hypnotics, like conium, and those derived from the solanaceæ, as well as certain opium derivatives.

Static Electricity and Oxygen.—A peculiarity of static electricity is its behavior with reference to oxygen. Oxgyen has an affinity for positive electricity. When a positive charge of static electricity passes through a volume of oxygen, a disintegration of the gas and a rearrangement of atoms of oxygen take place. A new gas is formed which has negative affinity and is tri-atomic. It is called *ozone* and has a characteristic odor. The passage of a flash of lightning through the atmosphere likewise produces ozone (tri-atomic oxygen). Ozone has more powerful oxidizing properties than oxygen. When a positive static spray is administered to the skin, some of the oxygen in the tissues and in the cutaneous vessels is changed to ozone and circulates as such, giving to the body, but more especially to the exhaled air, the characteristic smell of ozone.

From what has been said concerning the physiological effects of static electricity, we are prepared to summarize the therapeutic indications of the several static currents as follows:

1. Positive static electricity is to be administered to counteract hyperemia, nervous irritability, pain due to congestion, exaggerated reflexes, and all conditions due to overstimulation. It is a gentle circulatory regulator, nervous sedative and analgesic.

2. Negative static electricity is to be administered to counteract sluggishness of the circulation, lack of nerve-response, pain due to venous stasis (ischemia), absent or retarded reflexes and all conditions requiring stimulation. It is a decided stimulant, excitant and even irritant.

The different methods of applying static electricity are partly a matter of preference on the part of the operator, partly suggested by the character of the case. For general treatments the insulation and the use of the head-breeze are the best modes of application. For local troubles the most useful methods are the direct and indirect spray and the Morton wave current. The operator should endeavor to make a static treatment as agreeable and comfortable to the patient as possible. There should be no unnecessary sparking and shocking. Hats, combs and steel-corsets should be removed. There is always a suggestive element in using static electricity. This is a fact which is too well established to be questioned. Let the operator direct the suggestive influence into the proper channel in the interests of the patient. Let the operator's efforts not be confined to this. He should look upon the suggestive effect as being incidental and secondary to a well-planned and well-adapted therapeutic method based on clearly defined diagnostic features of the case and on exact knowledge of the physiological indications and possibilities of static electricity.

In conclusion let me say that the static machine as a generator for an x-ray tube is nothing more than a toy, radiographically speaking. For radio-therapeutic work it may be used with some degree of satisfaction. The reasons for these statements I may have an opportunity of discussing under the head of x-ray work.

COMMENTS ON THE LESSON

We are exceedingly sorry to announce that an injury to Dr. Juettner, who contributes the physiotherapeutic section of the Post-Graduate lessons, has made it impossible for him to prepare his regular monthly installment. The item on "Static Electricity and Oxygen" is a "left-over." Next month he will continue his portion of the lessons as usual. We are sure that every student in the School will join in the hope of Dr. Juettner's speedy recovery.

Once in a while we feel that it does us good—and we hope that it doesn't do our students any harm—to print some of the

nice things that come to our desk from those who have taken or are taking the course and find it good. We want to steal space for a couple such letters right here:

Dr. R. C. Hallowell of Haddonfield, N. J., writes as follows:

"I am not willing to let the new year grow old without having a personal little talk with you. I not only want to send some expression of sympathy and appreciation of the great work which you conceived and have accomplished, but, too, my gratitude for the pleasure and help it has given to me.

"We have finished one year's course. What a delight it has been! In deep bereavement and financial loss I started in, determined to head off any tendency to despair by honest study, going back to first principles from which in our hurry and skurry we are tempted to stray. Old medical associations, professional memories, tastes closer than any other—how they lift us out of the ruts and cares of a checkered life! But you have done more. You have brought in fresh new thought and thrown light along a dark way to many by your faithful probing and urging, making scientific study worth while, giving us clearer vision into things we ought to have been certain of long ago.

"You have certainly helped to lift up suffering humanity by making truer, more conscientious, *less conceited* doctors. Years ago, visiting in Minneapolis, I happened to be with medical friends in their office, when your agent came in and discoursed eloquently on alkaloidal remedies, treatment, etc. Then and there it was revealed to me that the right track had at last been struck. A future for medicine was opening out of dense misconceptions, false, socalled science, mistiness and uncertainties. Though there would necessarily be a great shaking of dry bones and bitter conflict, the light would expose mistake and down hoary prejudice.

"Sure enough, the light has come! The brutality of iron-bound conservatism, contumely, malice, must yield finally to truth. You and the clear-visioned band rallying to you have had a long wait—suffered loss, disappointment, ridicule—but at last you may see triumph ahead."

If there isn't encouragement enough in that one letter to fill one's heart full to overflowing with thankfulness and with anxiety to keep right straight ahead, doing more work and better work, then I don't understand my own heart.

The next letter comes from Dr. George H. Truax, Stonewall, Oklahoma.

"This finishes the first year of your Course and I have had great pleasure in studying the vast amount of information offered by you in it. While I have been quite busy with my practice I have tried the best I could to keep up with the good things and cannot help but mention what happened last night as I was writing about apomorphine, when answering the question about emetics in croup, etc. A knock at my door was answered, to learn that a little boy some three miles away was almost dead with croup, if not already so. I hastened to the bedside and found the little fellow nearly suffocated. I at once used hypodermically 1-20 grain of apomorphine with 1-100 grain of strychnine, and to my great joy as well as the patient's and of the parents, in fifteen minutes he vomited up a great amount of membrane, which gave immediate relief. I then swabbed out his throat with peroxide of hydrogen and left the little fellow in about one hour resting well, leaving the usual treatment for such a case, to be continued. This Course has been worth a thousand dollars to me."

Substitutes for Opium.—Dr. W. Herington, Green City, Mo., answers the first examination question for May, "Outline from your own experience five conditions for which opium and morphine are usually given which might better be treated with other remedies, telling how you would handle it" as follows:

"(a) *Angina pectoris* is usually relieved by most physicians with hypodermics of morphine. This condition is better treated by giving glonoin and hyoscyamine and leaving out morphine or opium.

"(b) *Gastralgia*. Out comes the syringe, as a rule, and in goes a dose of morphine, and that is all. This condition very often can be treated successfully by giving a good

dose of Hoffman's anodyne in one-half glass of warm water. Here again we might give hyoscyamine and repeat till effect and add strychnine arsenate 'to take up the slack.'

"(c) *Sciatica.* In severe cases we usually give a deep injection of morphine into or very near the sciatic nerve to give relief, but by making an injection of alcohol into the nerve or very close to it we can relieve the patient.

"(d) *Infantile colic.* Formerly we gave tincture opium; now we open our pocket-case, call for 10 teaspoonfuls of hot water, then drop in five granules of Waugh's infants anodyne, and then give half a teaspoonful once every fifteen minutes until that baby's bellyache stops. Then order a good dose of saline laxative followed by 1-6 grain sulphocarbolate of zinc every two hours—and the trick is done.

"(e) Along comes an old man with *cystitis*—lots of pain. Usually out comes the morphine to relieve him, but not now. I just give those kindeys a good flushing out. Wash out the bladder with sterile boric-acid solution, then place a hot-water-bag to the perineum and give him a few granules of hyoscyamine and tell him to go home, lie down and get his bottom end higher than his head and keep quiet and take these little pale-pink granules and get well."

In answers to the same question Dr. John Stuart, Monon, Indiana, has the following to say:

"(1) *Inflammatory pain,* as in peritonitis, appendicitis, etc., is quite commonly treated with morphine. Formerly I so treated, now I apply carbolized magnesium sulphate; 10 drops of carbolic acid to one ounce magnesium sulphate in each pint of hot water. I wring flannel out of this and apply over the inflamed part. Internally I give aconitine combined with gelseminine if the pulse is small and sharp. Sometimes I use the granules and sometimes the specific medicine. If the pulse is strong and bounding I give veratrum or veratrine.

"(2) *Pain increased by motion* is found in all inflammatory diseases: myalgia, serous inflammations, the various types of articular rheumatism and diseases of the joints and vertebræ. Bryonia answers an admirable purpose in all these cases.

"(3) *Paroxysmal or remitting pain* is characteristic of the neuralgias. Morphine in such a case can do no permanent good. I prefer ammonium chloride. I put 30 grains in seven tablespoonfuls of water and give one tablespoonful every three minutes. If slight nausea occurs I stop giving it.

"(4) *Spasmodic pains* call for an antispasmodic, and atropine and hyoscine are better than morphine.

"(5) *Angina pectoris* and similar attacks call for glonoin or hyoscyamine, not morphine. I have used inhalations of nitrite of amyl with satisfaction. When the attack is over, seek the exciting cause and remove it if possible. The exciting cause may be over-eating, flatulence, sexual excess, alcohol, fatigue, etc. Some writers advise hypodermics of morphine and atropine. I prefer other treatment.

"(6) *When the pain is produced by mechanical conditions,* as pressure obstructing the circulation, remove the cause but do not give drugs. When one must use morphine, I prefer to use the combination of hyoscine, morphine and cactin.

"Cutting pain in the abdomen is usually removed by colocynth.

"Painful cardiac affections, with difficult breathing, are relieved by convallaria. If the stroke of the pulse is feeble, so the pulse can be easily compressed and the tension of the cerebral vessels is such that an undue amount of blood flows into them when the patient lies down so he cannot sleep, digitalin will relieve.

"For muscular pains, uterine pain with tenderness, I find cimicifuga more satisfactory than morphine."

There seems to be more or less uniformity of opinion regarding conditions better treated with other remedies than opiates.

Dr. W. P. Barron, of Carmona, Texas, writes as follows:

"(1) *Gallstone colic.* For this condition nothing equals hyoscyamine, strychnine and glonoin. The hyoscyamine should be given in rather large doses at first until the pain is controlled, after that in smaller ones with

strychnine, repeated hourly until effect; I prefer the valerianate. Glonoin should be given in 1-250 grain doses repeated hourly. Sometimes an initial dose of 1-50 of a grain acts well, followed by the smaller doses. The object is to get the patient easy if possible with the first dose or two of this combination. Once this is done it is easy to keep him comfortable. I follow this "case treatment" with enormous doses of hot olive oil, the patient lying down on the right side for one-half an hour afterwards. I repeat the olive oil every hour or two hours until copious oily evacuations follow. Sodium succinate is given for 6 months afterwards. I forgot to say that these granules are given either dissolved in hot water, followed by a drink of hot water, or by the hypodermic method, all according to the case. If I had nothing else to be grateful for, this method would make me a friend of the alkaloidal way. It never fails in my hands.

"(2) *Reflex vomiting*, following operations, cholera infantum, renal stone, etc. I find large doses of atropine answer the purpose better than does morphine. I give large doses with the needle and repeat as needed. It gives me good results.

"(3) Morphine or opium is usually given in the *tenesmus of acute dysentery and diarrheas*. I find that small doses of gelseminine every half hour, pushed rapidly to effect and the effect sustained, act much better.

"(4) *In intestinal cramps* minute doses of colocynth act well and leave no bad effect like opium. It must be given in very minute doses frequently repeated. This I learned from an old eclectic friend.

"(5) *To diminish excessive secretion* or to relieve excessive peristalsis I find atropine much more satisfactory to use than morphine."

Hyoscine Alone and Combined.—Dr. Charles E. Buckley of Chicago writes regarding his experience with hyoscine alone and combined, answering the fourth examination question as follows:

"I have used hyoscine alone and combined in a number of cases where it is ordinarily indicated. Alone it has been useful in a number of obstinate cases of insomnia, and aside from obstetrics and minor surgery, I will briefly describe two cases where the combination of hyoscine, morphine and cactin was administered with good results.

"1. *Renal calculi.* Lady, aged 37. In a previous attack morphine sulphate, grain 1-4, was administered with the result that the pain was not relieved but the muscles of deglutition were paralyzed and the tongue slipped backward. In another attack one week later hyoscine and morphine were administered with the result that the pain was relieved and the patient was relaxed and went to sleep. The stone was passed the next morning without further trouble.

"2. *Intestinal obstruction.* Male, aged 42. Abdomen very much distended with gas and patient suffering excruciating pain. Morphine and atropine were administered without relief of the pain. Two hours later the hyoscine-morphine combination was given, followed by relief of the pain and sleep. High colonic flushings of glycerin, epsom salt and water reduced the obstruction."

Action of Gelseminine.—Dr. J. C. Wakefield, Vinco, Pa., has this to say regarding the action of gelseminine:

"Gelseminine has an action somewhat similar to cicutine but depresses the nerve centers more and lowers the temperature. I should use it in cerebrospinal meningitis, in the first stages of brain inflammations, in trifacial neuralgia and ovarian neuralgia and in acute inflammation of the lungs and pleuræ, because it has specific effect in those diseases."

Dr. R. O. Baker, Lockport, N. Y., makes the following comment on the action of this drug:

"The action of gelseminine is very similar to that of cicutine but depresses the cerebrum much more actively than the latter. It does not cause the same increased intravascular tension as cicutine. I should use gelseminine in spasmodic and hysteric retention of urine. Here its antispasmodic action on the lower spinal nerves relieves the condition very nicely. It may be combined with hyoscyamine and aconitine to

advantage in some of the more resistant cases.

"In influenza, with aching pains, nervous tension, congested capillaries and a general hypertonic condition it very nicely relieves symptoms and may be combined with defervescents and free eliminants. In neuralgia, especially trigeminal, gelseminine has given me some good results when combined with a course of eliminative and tonic treatment. I have found that aconitine forms a very useful adjunct. The gelseminine relieves the spasm and lessens the reflex excitability, the aconitine equalizes the general circulation and tends to relieve the local congestion."

Symptoms of Morphine Habituation.—We quote again from Dr. John Stuart, Monon, Ind., giving his answer to the first research question as follows:

"The chief symptom is the craving for the drug. Others are irresolution, loss of self-control, moral obliquity, and untruthfulness. Epigastric pain and nausea are generally complained of about the time the next dose of opium is due. Whether this is feigned or actual is difficult to determine. Mental depression, insomnia, anxiety, restlessness and a sense of impending evil are usually present as symptoms and are always relieved by the drug.

"As the craving increases the dose and its frequency have to be increased to keep up with the desire. Anemia gradually develops, the skin becomes sallow, the features waste, also the body. The pupils are generally dilated except when under the influence of the drug. Cardialgia is often complained of by morphine-fiends. Sexual impotence in the male and amenorrhea and abortion in the female are common results. The needle-scars, when the hypodermic needle is used, are often seen. It is often difficult to get a true history from the habitué on account of his inclination to lie."

Treatment of Morphine Habit.—Dr. W. G. Palmer, Detroit, Mich., writes regarding the principles which would govern the treatment of the morphine habit as follows:

"In treating the morphine habit the patient must be confined and watched by a nurse for a few days. Search the patient and remove all the drug and see that he gets no drugs except those given by the doctor. Good nourishing food and supportive tonics are necessary and active elimination must be kept up for some time. Gelseminine and various sedatives may be needed to allay the nervous symptoms. Other symptoms must be treated according to indications. The main thing is to see that the patient gets no more of this drug."

We wish to compliment our students on the excellence and practical character of the comments this month.

EXAMINATION QUESTIONS

1. Compare the therapeutic action of sulfonal, trional and veronal.

2. Tell your experience with the coaltar hypnotics; which, in your opinion, after personal use, do you think the most effective? Which produces most disagreeable symptoms, and what are these?

3. Report in detail one case of insomnia, and describe the method of treatment that proved most effective.

4. What class of hypnotic remedies are cumulative in action? How should these be administered? Give doses, method and hours of administration.

5. Suggest synergistic medication for a case of insomnia. What would be your directions relative to food, exercise, mental occupation, household sanitation, etc.?

6. What are the character and symptomatology of neurasthenic insomnia? How would you treat this condition to cure as well as give relief?

7. What is the behavior of static electricity with reference to oxygen?

8. Summarize briefly the therapeutic indications for the use of static electricity.

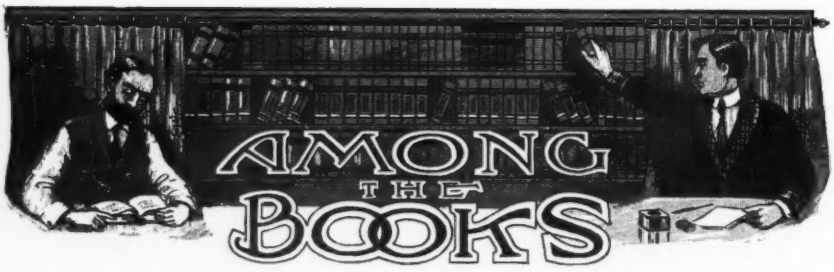
RESEARCH QUESTIONS

1. Tell us something about narceine, its physiologic action and therapeutic possibilities.

2. Give us briefly a little talk on the toxicology of the bromides. Name substitutes, remedies which modify the toxic action, and suggest treatment of this bromism.

3. Write a short article on headache and the remedies useful (a) for relief and (b) for cure.

4. Describe briefly one case of neurathenia and tell us how you treated it.



TODD'S "CLINICAL DIAGNOSIS"

Clinical Diagnosis. A manual by J. C. Todd, Ph. B., M. D., of Denver and Gross College of Medicine. Illustrated. W. B. Saunders Company, Philadelphia and London. 1908. Price $2.00.

In the honest endeavor of the medical student and of the physician to arrive more nearly to a positive knowledge of the various ailments which he shall be or is called upon to heal, diagnosis is the *sine qua non*. And the modern methods to arrive at this are a peremptory demand of both the laity and the profession. And while the laboratory is the best place for it, it is not advisable nor always possible to command this help. Nor ought we ourselves to be ignorant of laboratory methods and have others dictate to us a diagnosis. Besides, there are methods which we can learn to execute ourselves. As a safe, sufficient and reliable guide to all these the manual of Dr. Todd is confidently recommended.

MALLORY AND WRIGHT'S "PATHOLOGICAL TECHNIQUE"

Pathological Technique. A practical manual for workers in pathological histology and bacteriology, including directions for the performance of autopsies and for clinical diagnosis by laboratory methods. By Drs. F. B. Mallory and J. H. Wright, Harvard University. Fourth revised and enlarged edition. With 152 illustrations. W. B. Saunders Company, Philadelphia and London. 1908. Price $3.00.

If you do not want to bungle at your first and subsequent autopsies and institute pathologic and bacteriologic inquiries, you can not be better advised than to read well this book.

LEE'S "OBSTETRICS FOR NURSES"

Obstetrics for Nurses. By Joseph B. De Lee, A. M., M. D., Northwestern University. Third edition, thoroughly revised and enlarged. W. B. Saunders Company, Philadelphia and London. 1908. Price $2.50.

To the just meed of praise we gave this book in our journal for July, 1907, we have only to add that it continues to be a model of its kind for students and nurses. Let us be permitted to add that we admire Dr. De Lee's ethics and taste.

SCHAMBERG'S "DISEASES OF THE SKIN"

Diseases of the Skin and the Eruptive Fevers. By J. Frank Schamberg, A. B., M. D. Illustrated. W. B. Saunders Company, Philadelphia and London. 1908. Price $3.00.

This book is a decided acquisition to the literature of skin diseases, whether idiopathic or symptomatic. The classification, nine in all, allows the author to list all known dermatoses under these heads, but in addition to these classes he has a special extra chapter on the acute eruptive fevers, and a fine usefulness-promising chapter this is. The work has fresh original features in it, and if we had the best works on dermatology

in our library we should covet to have this one nevertheless. The typography and illustrations deserve of special mention.

CASPER'S "GENITOURINARY DISEASES"

A Textbook of Genitourinary Diseases. Including Functional Sexual Disorders in Man. By Dr. Leopold Casper, University of Berlin. Translated and edited with additions by Charles W. Bonney, of Jefferson Medical College. Second edition, revised and enlarged, with 230 illustrations and 24 full-page plates, 8 in colors. P. Blakiston's Son & Company. 1909. Price $5.00.

In our review of the first edition, in 1906, we thought this book would "prove an invaluable acquisition for both specialist and general practician," being then the latest in this branch of medicine both in Europe and our own country. The same is true of this second edition as it embodies again the most recent advances made in this line during the last three years, both in Europe and America. The German author and the American translator and editor seem to be happily associated to give us an excellent work at all times.

MUNRO'S "SUGGESTIVE THERAPEUTICS"

A Handbook of Suggestive Therapeutics, Applied Hypnotism, Psychic Science. By Henry I. Munro. Second edition. C. V. Mosby Medical Book and Publishing Company, St. Louis. 1908. Price $3.00.

The materialism of many physicians and the arrogant all-self-sufficiency of modern materialistic scientists acted as factors why hypnotism and suggestion were not accepted in their early-appearing periods. Materialism has no soul and believes in no soul or anything that savors of an unmaterial existence, while hypnotism and suggestion unavoidably acknowledge immaterial acting and reacting existences. And so materialistic physicians laughed at any attempt of an immaterial therapy, or became blusteringly serious and denounced it as humbug and fraud. But materialism had to succumb at last; and this together with scientific medical nihilism demoralized a great part of the laity which, because material medication was not omnipotent, they flung it aside as nihilopotent, and began to run for dear life after all kinds of immaterial claims of healing power, all the way from rich Eddy pseudo-Christian temples down to the tents of the gypsy camp and accept the charms of the old hags there.

The reaction is at this moment working mightily, and the sober-minded physician needs a guide in the undeniable therapeutics of hypnotism and suggestion. There are some good ones, many bad ones, and a multitude which merely cumber the space on our library shelves. Dr. Munro's book is decidedly the best on the subject of psychic therapeutics. It is the best we can have at the present, while the age is in its transition period from gross materialism and overstrained spiritualism to a rationally balanced faith in the overruling goodness of an invisible God and a spiritual world.

BEATTIE AND DICKINSON'S "PATHOLOGY"

A Textbook of General Pathology. For the Use of Students and Practitioners. By J. Martin Beattie, M. D., University of Sheffield, and W. E. Carnegie Dickinson, M. D., University of Edinburg. With 162 illustrations and 4 plates from original preparations. P. Blakiston's Son & Company, Philadelphia. 1908. Price $5.00.

A decidedly most modern handbook, containing the most recent developments in the research results in pathology and physiology. Writers whose manuals of pathology have gone through many editions during the last fifteen to thirty years have changed, added, struck out from their books according to the progressive demands of theories and facts. This book before us is altogether the child of our most recent achievement in organic science.

The authors very happily succeeded in ranging the vast subject of pathology under the headings of only seven chapters as fol-

lows: (1) The cell in health and disease; (2) general retrogressive processes; (3) disturbances of the circulation; (4) inflammation and repair; (5) progressive tissue changes; (6) animal parasites; (7) immunity.

The writer of these lines is neither an indiscriminate kainophobe (fearing anything new) nor a palaiophile (friend of old things), he is but a holder to that which is good as he sees it, and in this book he finds so much both of old and new things in pathology so well and lucidly told that he must restrain himself against overflowing eulogy.

"THE CLIMBING COURVATELS"

A cleverly written and thoroughly entertaining story is "The Climbing Courvatels," written by Edward W. Townsend and published by Stokes. A married couple, "Dick" and "Betty," who have made a comfortable fortune as sleight-of-hand performers, retire into good society, where their former occupation is unknown. Their natural good-breeding has to struggle with the instinctive slang of their former "art"—which almost brings them into trouble time and again, yet serves as their salvation. There are many fascinating situations, a few adventures and much heart-true philosophy before this delightful couple attain an established position and get their children properly settled for life. A "dandy" story for light summer reading.

"NEW IDEALS IN HEALING"

This little book, written by Ray Stannard Baker, for the most part consists of articles reprinted from a popular magazine. In the first part Mr. Baker discusses the Emmanuel movement and gives some very interesting facts concerning Drs. Worcester and McComb, the Episcopal clergymen who set it in motion. In the second part he takes up the Social Service Department of the Massachusetts General Hospital and tells of the splendid work that such men as Drs. Richard C. Cabot, J. H. Pratt and other physicians are doing to cure the diseases of the poor by teaching right living—at home.

Nothing can better illustrate the unselfish and truly humanitarian work of our profession than this recital of the work of a group of earnest physicians. Whether he agrees with the methods of these men, or coincides in Mr. Baker's conclusions as to the value of the work or not, it is certain that no physician can read the book without pride in his profession and the stimulation of a desire to help others. Price 85 cents. Published by Stokes.

SOME BEAUTIFUL BOOKS

We have reviewed from time to time some of the books published by The Surgery Publishing Company, 92 William St., New York, (which is another name for our good friend, Dr. "Joe" MacDonald), among them Neef's "Practical Points in Anesthesia," Luckett and Horn's "Paraffin in Surgery," Wile's "Blood-Examinations in Surgical Diagnosis," and Brickner, Moschowitz and Hays' "Surgical Suggestions." We repeat with pleasure all the good things we have said of all these books. Each one is a surgical literary "cameo"—a finely cut picture of surgical helpfulness.

We have now to thank Dr. MacDonald for some beautiful *de luxe* editions of these books, which are printed on the finest enameled paper, several of them in two colors, all bound in flexible crush-leather binding, with silk linings. We don't know whether they are for sale or not—but presumably "Joe" will find the books if you can find the price.

"LORIMER OF THE NORTHWEST"

The new Canada, the greater Canada, is the theme of this interesting novel, which recounts the adventures of a young Englishman of good middle-class family who leaves the great industrial establishment of his wealthy uncle to raise wheat and cattle and carve a name and a fortune for himself out of the great agricultural empire of the western Dominion; and incidentally to press his suit with the lady of his choice, one in every

respect worthy of his manhood. The reader of this book will not only enjoy a "rattling" good story but will glean many interesting facts concerning the resources, growth and possibilities of our coming rival to the north. The book is written by Harold Bindloss and published by Stokes.

GREENE AND BROOK'S "GENITOURINARY AND KIDNEY DISEASES"

Diseases of the Genitourinary Organs and the Kidney. By Robert Holmes Greene, A. M., M. D., of Fordham University, and Harlow Brooks, M. D., of Bellevue Hospital Medical School of New York City. Second edition, revised and enlarged, with 323 illustrations. Philadelphia and London: W. B. Saunders Company. 1908. Price $5.00 net.

The conception of the author to produce a work on a medical subject which necessarily partakes of internal medication and external hand-treatment ("*cheir-ergon*") by the joint labors of a surgeon and a physician and thus produce a useful volume for the everyday general practician was faithfully carried out in the first, but in the present, second, edition the work has been considerably enlarged. This rapid succession of editions is what was expected. The book is one of the handiest for the general practician we are familiar with.

KELLY'S "APPENDICITIS"

Appendicitis and Other Diseases of the Vermiform Appendix. By Howard A. Kelly, M. D., With 215 original illustrations, some in colors, and three lithographic plates. Philadelphia and London: J. B. Lippincott Company. 1909. Price $6.00.

This volume contains nearly 500 pages closely printed with ten-point type, besides indices of names. In referring to the first edition of this book, which the author prepared in conjunction with Dr. Hurdon and which he endeavored to make "a great storehouse of well-digested facts relative to the protean diseases of this little organ," he adds: "It soon, however, became evident that a compact résumé dwelling with especial care on the practical side of the subject would better meet the daily needs of the great army of general surgeons throughout the country." That Dr. Kelly's surmise was correct and that he was willing to subject himself to this difficult task, for the good of all, is a matter for which the profession owe him thanks.

This résumé edition contains an article by Dr. Walter L. Burage on senile appendicitis, culled from French authorities. In this senile period of life appendicitis presents certain pecularities which it is important to know. The entire make-up of this volume is fittingly in harmony with its scientific, professional and literary excellence.

JORDAN'S "GENERAL BACTERIOLOGY"

General Bacteriology. A Textbook. By Edwin O. Jordan, Ph. D. Fully illustrated. Philadelphia: W. B. Saunders Company. 1908. Price $3.00.

A book such as this is very much needed at the present time by everyone who is interested in living beings, their health, their diseases, their growth, their decay. The author did a service with this book to those who seek for knowledge, whether they are professional or laymen.

CHURCH'S "NERVOUS AND MENTAL DISEASES"

Nervous and Mental Diseases. By Archibald Church, M. D., of Northwestern University, and Fredrick Peterson, M. D., of Columbia University. With 341 illustrations. Sixth edition, thoroughly revised. Philadelphia and London: W. B. Saunders Company. 1908. Price $5.00.

It is our privilege now to review this excellent volume for the third time since 1901, when it was in its third edition. At that time as also in our notice of it in 1906 we mentioned that in Dr. Peterson's part of the book insolation ought to have been mentioned as a cause of insanity, the pathology of which is given by Dr. Schroeder Van Der Kolk as pachymeningitis. This is mentioned here

again for the benefit of our readers interested in this subject.

The present edition has been enlarged by some twenty pages of new reading matter, in addition to a special chapter on psychasthenia, "based on the recent formulation of this tolerably distinct symptom-group to enable its differentiation from neurasthenia." Other advances made in the general subject of nervous diseases during the last few years were deemed sufficiently established to be incorporated in the present edition of this —and what we think worthy to be called "classic"—work.

DACOSTA'S "PHYSICAL DIAGNOSIS"

Principles and Practice of Physical Diagnosis. By John C. DaCosta, Jr., M. D., of Jefferson Medical College. With 212 illustrations. Philadelphia and London: W. B. Saunders Company. 1908. Price $3.50.

The author seems to have had an apprehension lest the detailed clear minuteness of his excellent book should mislead the reader to rely mechanically on the modern instruments of diagnostic precision, of which this book is full, so he put as a warning motto on the first printed page the wise words of W. W. Keen, which run as follows: "With all our varied instruments of precision, useful as they are, nothing can replace the watchful eye, the alert ear, the tactful finger and the logical mind which correlates the facts obtained through all these avenues of information and so reaches an exact diagnosis." And no book but like the one before us here needed such a warning. The writer puts this book out of his hands with an admiration which he has rarely felt in his long medical life.

DAVIS' "OBSTETRIC NURSING"

Obstetric and Gynecologic Nursing. By Edward P. Davis, A. M., M. D., of Jefferson Medical College, Philadelphia. Third edition, thoroughly revised. Philadelphia and London: W. B. Saunders Company. 1908. Price $1.75.

The great benefit of a trained and intelligent nurse in obstetrics and gynecologic cases is that the modern prophylactic aseptic and antiseptic practice can by such nursing be carried out scrupulously. We see it now in the great decrease of obstetric mortality. It is to be regretted that the poor who are unable to pay a trained nurse, and who for excusable reasons are unwilling to go to a public hospital, cannot avail themselves of these advantages. Could not some of the deaconess' orders find opportunity among the sick poor to increase their usefulness a thousand fold?

MACFARLANE'S "GYNECOLOGY FOR NURSES"

Reference Hand-Book of Gynecology for Nurses. By Catharine Macfarlane, M. D., Gynecologist to the Women's Hospital of Philadelphia. Illustrated. Philadelphia and London: W. B. Saunders Company. 1908. Price $1.25.

An excellent neat little book for the pocket or handbag, in flexible leather binding, exceedingly well illustrated, and up to date in every respect.

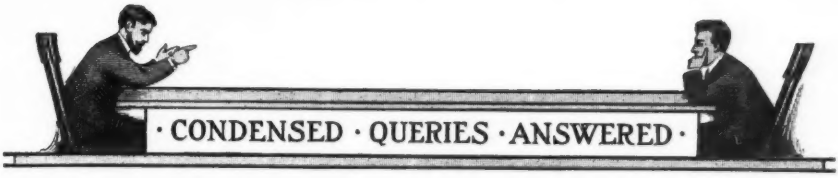
BECK'S "HAND-BOOK FOR NURSES"

A Reference Hand-Book for Nurses. By Amanda K. Beck. Second edition, revised. Philadelphia and London: W. B. Saunders Company. 1908. Price $1.25.

We can not but admire the extent of knowledge this advanced little great book presupposes and demands of a modern nurse, and the thorough manner of its instructions to this effect.

KELLOGG'S "LIGHT THERAPEUTICS"

The Modern Medicine Publishing Company promises the appearance soon of a thorough work on phototherapy, by Dr. J. H. Kellogg, under the title of "Light Therapeutics." Dr. Kellogg has fine facilities in his Battle Creek sanatorium to produce a reliable work.



PLEASE NOTE

While the editors make replies to these queries as they are able, they are very far from wishing to monopolize the stage and would be pleased to hear from any reader who can furnish further and better information. Moreover, we would urge those seeking advice to report the results, whether good or bad. In all cases please give the number of the query when writing anything concerning it. Positively no attention paid to anonymous letters.

ANSWERS TO QUERIES

ANSWER TO QUERY 5420.—I would advise M. K., Query 5420, to use the x-ray in his case of leukemia. I should use it over the spleen. I have never used it in a case like the one he describes, but cured a marked case of pseudoleukemia, two years ago, by this treatment and the patient has remained well and enjoyed better health than ever before. I also used high-frequency current on the affected lymphatics of the neck.

H. O. WELLS.

Fort Wayne, Ind.

—

ANSWER TO QUERY 5439. "The Injection of Lobelia." I have used sp. tr. lobelia, also lobelin, in hypodermic injection for two years and have never had any more complaints than usual in any case. To reduce the irritation from the alcohol I always take in the lobelia first, then draw in twice the amount of sterile water, shake, expel air and inject. In a good many cases where children are to be treated, quite hard pressure over the injection spot with a pledget of cotton soaked in alcohol will so benumb the cutaneous nerves that they never feel the hypodermic at all.

In all probability the doctor tried to force in a liquid where there was so much pressure from hyperemia and edema that the addition of any more pressure was very painful to the already excited nerve terminals. In an article in CLINICAL MEDICINE some time ago I called attention to the fact that lobelia was counterindicated in any abscess formation where nature had it walled off, because the specific action of lobelia is to cause dilation of all tissues and from this action we may obtain a systemic infection from what would otherwise be localized. The hypodermic injection of sp. tr. arnica root, 2 to 5 minims, would have given the relief from pain anticipated and at the same time have acted curatively.

A. E. COLLYER.

Elgin, Neb.

QUERIES

QUERY 5442.—"Dosage of Alkaloids for Children." H. L. B., Indiana, asks: "What is the rule of dosage for children under one year; say from one month upward. Is it the same as one year?"

The safest plan when using toxic drugs such as strychnine, aconitine, etc., is, of course, to put one granule in twenty-four teaspoonfuls of water and give one teaspoonful at a dose, repeating this as often as is desirable; but we do not like to give, especially to young infants, such large quantities of fluid and, unless the attendants are very ignorant and careless, prefer to push our remedy more effectively. We therefore give a granule in two teaspoonfuls of water and order five to ten drops at a dose—half-hourly or hourly, as a rule, "to effect."

There can be no positive rule as to dosage. As we have often pointed out, the dosimetric granule represents "the minimum known-to-be-effective dose for an adult," and usually, therefore, will be a full reasonable dose for a child.

When treating infants we must exercise every care, and unless thoroughly familiar with the alkaloids it is best to keep on the safe side.

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QUERY 5443.—"Dosage of Apomorphine." J. H. D., Maryland, calls attention to the dosage of apomorphine given on page 107 of "Shaller's Guide." "By some mistake," he says, "a child two years of age has the same dose as one of six and a child from four to six receives a one-fourth larger dose than one of six. Is this an error of the proof-reader?"

Our attention has been called to this error several times. The following table of doses from Radue's "Diseases of Children" will be of interest to you and should be preserved for future reference:

APOMORPHINE

AGE	DOSE
10 years, 36 granules of one milligram each in 24 tablespoonfuls of water	gr. 1-50
5 years, 18 granules of one milligram each in 24 tablespoonfuls of water	gr. 1-100
3 years, 9 granules of one milligram each in 24 tablespoonfuls of water	gr. 1-200
1 year, 4 granules of one milligram each in 24 tablespoonfuls of water	gr. 1-400

As a matter of fact we do not hesitate to give a child of five from 1-15 to 1-10 of a grain hypodermically to produce emesis, in fact we should give the smaller dose mentioned even to a year-old child in an emergency. A milligram may be given to a very young child, but where we desire to use a solution and be on the safe side the above dosage may be adhered to. The same error runs all through this edition of Shaller's "Guide" but will be corrected in the next.

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QUERY 5444.—"Metritis; Septic Hepatitis?" J. B., Florida, describes a rebellious case as below and asks for suggestions.

"The woman, age 23, fine physique, family history good, four years ago was delivered of a fine child; labor normal. On the fifteenth day she had a chill, the right leg began to swell, and I had a case of 'milk-leg' on my hands, which ran the usual course, recovery seeming complete. Last July she became pregnant again and five weeks later aborted. I curetted the uterus thoroughly, as I thought, giving the usual attention. Just as I felt that I could discharge the patient her left leg began to pain and swell, and soon thereafter the right leg also began to swell again up to the extent of the other. She began flooding considerably. Again I curetted and every third day swabbed the uterus with the oil solution of thymol iodide. The flow gradually slowed up and the pelvic pains grew less. The pelvic vessels were all more or less irritated. In fact, from her knees to her shoulders this was the case. When the next menstrual period came around the flooding was something fearful. All the time the uterus had remained swollen and hard. For three months I kept her quiet in bed, not allowing her to make an unnecessary movement. Only once in four months did she have any rise of temperature, which was controlled on the third day.

"At all times I have kept her in good condition, giving the arsenates with nuclein, keeping up the appetite and digestion. I gave anemonin to prevent clot, iodides to stimulate absorption, using calx iodata, finding it preferable to potassium iodide. But I haven't time to tell you what all I *have* given from first to last. I bandaged her limbs with an elastic bandage and allowed her to be placed in a chair. She has been gradually improving, but too slowly. She still has considerable pain throughout the pelvic region when she moves around a little too much; but the greatest discomfort is in the region of her liver, which I have not been able to benefit to any appreciable degree. I have used 'flying blisters,' and at last blistered the hepatic area well but with only temporary benefit. I have kept the liver acting satisfactorily. At this time I am giving sodium succinate.

"At no time have the superficial vessels been enlarged although often tender. By the persistent use of iodine-glycerin suppositories the uterus is of normal size. The last menstrual period was almost normal,

with only slight disturbance. The swelling is all gone from the limbs. From this hurried and imperfect report of the case, can you help me?"

Now, let us look into this. Have you thought of the possibility of specific (gonorrheal) infection? We very much fear it does exist. The hepatic disorder may not be due to the other conditions. On the other hand, there probably is a septic hepatitis. It is quite evident that the septic clot disintegrated and was carried into the circulation. We fear you now have to do with a metritis, together with other pelvic complications.

We should feel inclined to put this woman on large doses of nuclein, calx iodata, phytolaccin, stillingin and arsenic iodide, given in minute doses every four hours. Also echinacea and calcium sulphide every three hours, and before each meal boldine with xanthoxylin in full doses. Sulphur, podophyllin and collinsonin an hour after the two principal meals of the day would prove useful. Every night give epsom-salt sponge baths (one ounce of magnesium sulphate to the quart of water, with 10 minims of carbolic acid). Use this solution *hot*, bathing the entire body. Twice a week order high enemata of decinormal salt solution, and every other night a copious douche of the epsom-salt solution, creolinated. Inunctions of unguentum Credé three or four times a week are also likely to prove beneficial, and after the douching we should pack into the vaginal fornices a strip of gauze carrying carbenzolated oil.

If you have a wall-plate or good set of batteries, the application of an intrauterine copper electrode (copper electrolysis) may give good results. Suppose you try the treatment here suggested faithfully for one month and report results. If we had a specimen of the patient's urine and a small amount of the vaginal discharge for examination we might be able to speak more positively.

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QUERY 5445.—"Some False Impressions Corrected." E. O. N., Texas, likes the alkaloids and positive therapeutic methods, but has "never got into the habit of using many alkaloidal preparations on account of the trouble of having to repeat the dose so often unless I should give a great many tablets at one dose, which would be so expensive."

We are sorry that you have so far failed to fully grasp the extreme simplicity of alkaloidal methods. We wish you would pay especial attention to the answer to a query which appears in THE AMERICAN JOURNAL OF CLINICAL MEDICINE for April (page 484), "Some Difficulties and How to Overcome Them."

In acute cases, where prompt impression and quick cure is desirable, doses are given somewhat rapidly, but the positive therapeutist has his patient out about the time the ordinary physician is settling down to a long course of medication.

As a rule one to two tablets or granules are given three or four times daily; the usual thing in chronic cases being one to two tablets before meals, one or more after and one between meals with perchance a morning saline, or perhaps a single tablet at bed-time. In many chronic cases there is but a morning saline and one or two tablets three times a day.

Now, as regards expenses you are entirely wrong. To the patient you dispense not more than six days' treatment, one tablet four times a day, i. e., twelve tablets. As a rule twenty-five tablets will prove sufficient, with the proper adjuvant "clean-out" medicine, the cost of which is absolutely nominal. The expense, per patient, therefore, for the most expensive remedies, will rarely exceed, say, thirty cents a week, and the results will be satisfactory in that you have made a friend and a reputation.

Now we are dealing here with the most expensive combinations. In the majority of cases the prices range from ten to twenty-five cents per one hundred doses, buying by hundreds. In such cases the medicine will cost only from three to ten cents a week.

We will imagine that you treat a systemic infection and you desire to clean up the intestinal canal and keep it clean, thus reducing fever. The amount of calomel, podophyllin and sulphocarbolates neces-

sary will cost you not more than ten cents, and the calcium sulphide and "dosimetric trinity" used in the ordinary case might perhaps cost a nickel; at the very worst twenty-five cents will cover your medication! With such easily taken and inexpensive remedies you can control most of the less desperate infections. Your patient once on the way to recovery, you will prescribe, let us say, the triple arsenates—one of the most powerful tonic combinations listed. These may cost you ten to fifteen cents per hundred; you will dispense fifty of these and ordering one or two three times a day. In a week or two the patient will be in good condition, satisfied and quite willing to pay good fees for the excellent work done.

If you will review this whole subject, Doctor, you will come to an entirely different conclusion concerning expense, and a few weeks' practical work along the lines laid down will cause a marked increase in your practice. Try it and report results.

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QUERY 5446.—"Chronic Epididymitis?" C. B. S., New York, presents the following clinical report and asks for suggestions: "Man of middle age, about fifty, had severe injury of the right testicle one year ago. The testicle swelled and was so painful that the patient was confined to bed, much prostrated and suffering intensely, for about three weeks. I diagnosed prostatitis at that time but am now convinced the trouble all came from the injury to the testicle. Patient seemed to improve slowly and wore suspensory after getting around. Treatment palliative; hot-packs and guaiacol applications; but the tenderness never entirely left the testicle. Two months ago pus reappeared in the urine with much irritation of urethra. Could not determine the source of pus as I have only limited laboratory facilities. Sent patient to a good hospital, where source of pus was located in epididymis; for five weeks he was treated with daily irrigations of the bladder with solutions of protargol and silver nitrate, with three doses daily of oil of sandalwood. Patient returned unsatisfied, but feeling better. Tenderness of testicle somewhat better and general health a little improved.

"Pus has again appeared in urine and the testicle, or epididymis, is increased slightly in tenderness. He does not want to go back to the hospital and irrigations as he thinks they are treating him for imperfectly cured gonorrhea which he stoutly asserts he never has had. I am quite sure he never has had any venereal disease. He is a man of excellent habits and morals, and it does look as though the hospital treatment is on the wrong track.

"Will you kindly give me your opinion of a course of medical treatment for this case that will finally remove the inflammation and pus formation and a palliative for the urinary tract to relieve the irritation from the pus which is now only in small quantities? Think the prostate is somewhat tender also."

We regret to say that it is impossible for us to outline a positive treatment without a much clearer idea of pathological conditions. Specimens of pus and urine should be sent to the laboratory for examination. State conditions of cord, size of testicle, location and character of pain and examine the prostate, making pressure; indeed, it would be well to milk the prostate, sending a specimen of the resultant discharge. This man will be benefited by full doses of arbutin, echinacea and calcium sulphide alternated with methylene-blue.

We should inunct a small quantity of unguentum Credé daily for two or three days, then every second day for another week; one-half dram well rubbed in would prove sufficient. Of course it is best for the patient to do the rubbing; if a nurse or doctor inuncts rubber gloves should be worn. The patient should be kept quiet and wear a snugly fitting suspensory and his bowels must be kept thoroughly open and aseptic. Hot enemata and sitz-baths are suggested.

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QUERY 5447.—"The Use of 'The Right Remedy.'" An Ohio physician, who desires to remain unknown, writes: "I was

engaged in reading your letter referring to the tapeworm remover, when a patient came into my office; and from symptoms, etc., I was sure he had a tapeworm. I at once prescribed the male-fern combination and today, twelve hours later, patient brings his worm in a jar instead of in his intestines—head taking the dose. While this may not be new to you, I wish to express my thanks and appreciation to you for this prompt and satisfactory result."

This report points a moral even though it does not adorn the tale of the tenia. A doctor should learn to diagnose from the physical appearance of his patient, and the victim of tapeworm certainly often presents facial peculiarities which are significant. Using good common sense and diagnostic ability the doctor was able to prescribe "the right remedy for the condition present;" and as a result the "condition" no longer exists.

Just such positive success will always attend the man who can recognize the pathological condition extant and select the right remedy therefor, giving it in dose enough to obtain the results desired.

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QUERY 5448.—"A Peculiar Case: Nervousness or Acidosis?" J. M. H., Kansas, desires light on a case described as follows: "A woman, married, age 28 years. At the age of 16 began having the sensation of crawling worms on the point of the right shoulder-blade. A feeling of numbness supervened, which extended until now the entire shoulder is supersensitive, aching, throbbing, and she says, 'feels as if the bone would jump out.' Firm pressure elicits no particular pain, but the part is 'tender' and 'sore.' The sterno-cleido-mastoid is now involved and feels better when held or pulled as one wants to do with a cramped muscle.

"Family history negative on the mother's side. Father died recently of apoplexy. One brother has a 'seizure' if struck a blow on a superficial nerve. The patient has suffered many things from many physicians, osteopaths, etc., and says life is surely a burden, as she is growing more and more unable to go about her duties. She has one child 19 months old. Normal pregnancy and labor. Considerable lumbar weakness from procidentia or possibly slight retroversion of the uterus. Rheumatic history negative and rheumatic remedies have had no effect."

One might think of the possibility of aneurism, but the more gross evidence of such a condition should be noticeable by this time. Occasionally cancer of the liver causes marked distress under the right scapula and atony of the stomach, in some cases, produces the symptoms noted. Hepatitis, acute and chronic, may give rise to "shoulder and neck" pain; it would be well to go carefully over the hepatic and gastric regions.

You so positively exclude the idea of rheumatism that we are compelled to relinquish the most plausible explanation; nevertheless we should like to have a four-ounce specimen of urine from the full day's output (state quantity voided) for examination. Were there neuritis of the brachial plexus, arm motion, especially on stretching above the head, would cause intense pain. However it is in this direction that we must look and we suggest that you test the reflexes carefully and note areas of skin tenderness or anesthesia. The skin is usually hypersensitive and upon deep pressure tenderness may be detected along the course of the suprascapular nerve through the axilla under the clavicle and into the scaleni muscles at the side of the neck. Investigate the early history; there may have been some fall or suspension by one arm in early life. The muscles on the affected side should be gone over and any atrophy noted. Is there any sign of palsy?

Without further and more definite data we should call this a neuritis and as rapidly as possible should improve the patient's general condition, using blisters, electricity (faradism) and massage or vibration locally. The uterine displacement must be corrected. Clean out and keep clean the *primæ viæ*; keep the skin active and improve nutrition. Nuclein, lecithin, macrotin and anemonin are likely to prove bene-

ficial.' But we would almost undertake to guarantee that a thorough examination of the secretions will reveal an acidemia (obscure rheumatic condition) as it has heretofore been termed. Doctor, make a minute examination, send us report and the specimen of urine and we will try to help you further.

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QUERY 5449.—"A Case of Arsenical Poisoning." J. M. M., Illinois, a short time ago sent in a specimen of urine, which showed a low specific gravity, albumen, renal epithelia, much pus, granular casts and amorphous phosphates and triple phosphates in abundance. He stated that the patient had tried to commit suicide with arsenic, and in our reply we called attention to the fact that the very marked irritation of the kidneys and vesical mucosa probably was due to this drug. Thereupon further particulars were received, which we quote as follows:

"The patient, a woman 43 years of age, has no history of serious illness during childhood or adult life; is mother of two children; her mother died in the insane asylum. This patient was adjudicated insane twelve years ago, was committed to an asylum, but after about one year was discharged 'cured.' Had not been violent at any time. Has since then occasionally had spells of melancholia; is troubled at times with insomnia, and it was during such an attack that she attempted her own life as she was afraid she would become insane again, and, as she expressed it, 'rather than suffer her grown daughters to experience such humiliation she thought it best to end her life.' Her general health has been good during these years.

"The woman now has lost the use of her hands and feet. There is some swelling of the extremities and stinging pain in the hands. She cannot sleep more than an hour at a time; cannot lie down long at a time as that increases pain in the calf of the legs and arms. Total amount of urine voided in 24 hours is 73 ounces. The patient is suffering from paris-green poisoning which occurred twelve days ago, when the first two days there was complete retention of urine, which gradually increased from 2 ounces to the amount mentioned."

It is not easy to prescribe positively for a person in this condition. Medication will have to be changed from time to time to meet the changing clinical picture. However, one thing is quite certain, congestion must be relieved, elimination increased, circulation equalized, and the patient's nutrition improved.

Suppose you start off by giving a dram of a good preparation of hydrangea in a glass of thin barley water and 0.022 Gram of arbutin three times a day. Stillingin, Gm. 0.01; xanthoxylin, Gm. 0.01, and boldine, Gm. 0.02, before each meal, papayotin, a grain, with sulphur, podophyllin and collinsonin after eating. For one week give, one hour later, bile salts, pancreatin and sodium sulphocarbolate, to secure desirable intestinal conditions. Full doses of avenin (gr. 1) with 30 drops of tincture of passiflora an hour before retiring, and on retiring—together with a salt-sponge-bath—will secure sleep.

Try this line of treatment for two weeks and report results. Dilute phosphoric acid is distinctly indicated here, 5 to 10 drops in a glass of water with meals.

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QUERY 5450.—"Curare in Epilepsy." A. P. A., Wisconsin, asks how to give curare (Merck) in epilepsy. Curare is a distinctly dangerous drug and has not proven satisfactory in the hands of the writer. You will find the Abbott-Candler treatment for epilepsy outlined in this journal some time ago (CLINICAL MEDICINE, February, 1906) efficacious in the great majority of cases.

Merck & Co. will undoubtedly be able to supply you with literature on curare. Curarine and curin are the alkaloids, curin being much less poisonous than curarine. Curarine may be taken by the mouth as absorption from the stomach is very slow. The chief use of the drug is in tetanus, strychnine poisoning and hydrophobia. The danger accompanying its use is very great, and unless every other treatment had failed we should not resort to its use.